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OF

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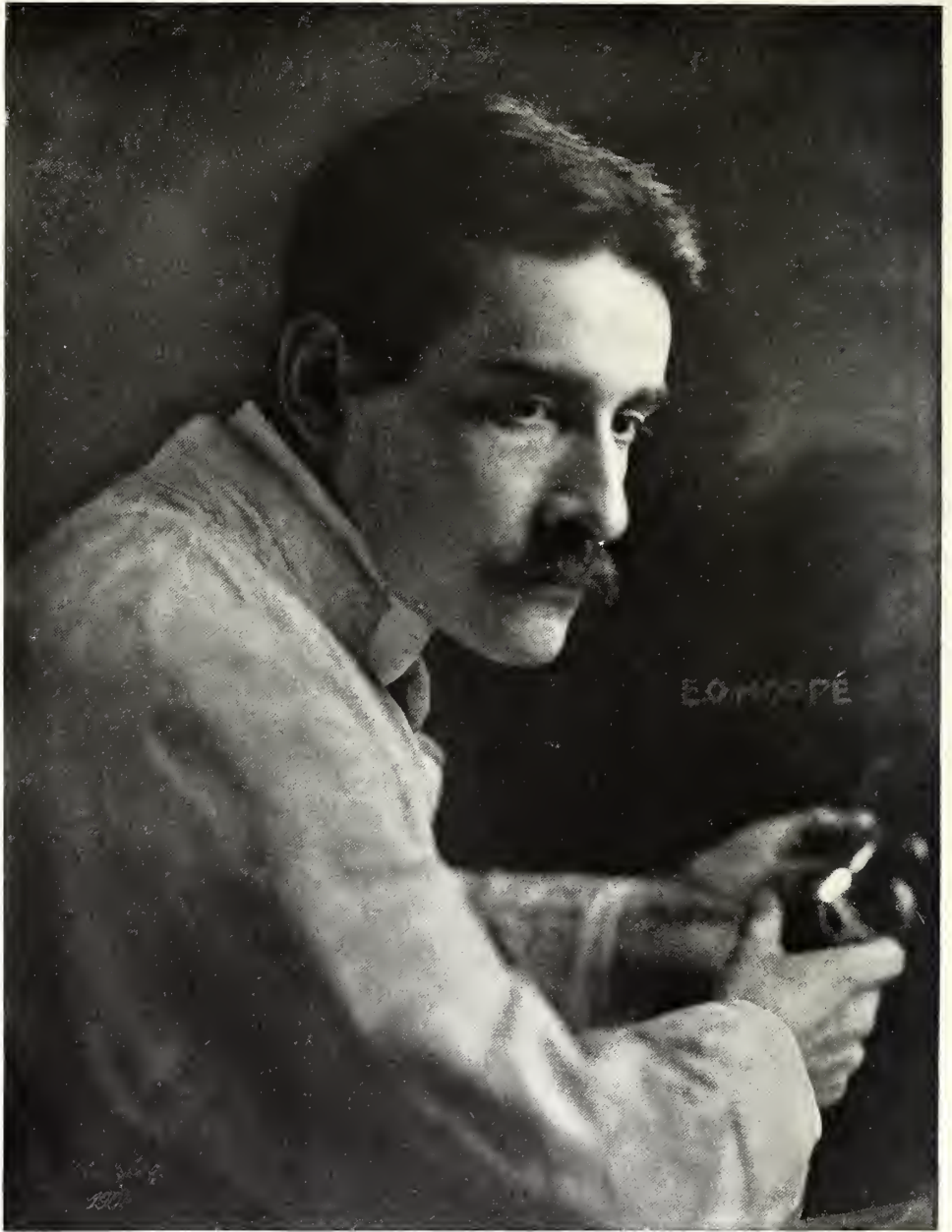
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E. O. HOPPÉ, F. R. P. S.
BY R. DÜHRKOOP



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JULY, 1909

No. 1

Characterization and Individuality in Portraiture

JULIUS ROBINSON

Illustrated with Photographs by E. O. HOPPÉ, F.R.P.S.

OF all his studies, that of portraiture gives to the photographer the widest scope, both as regards the fascinating and inexhaustible nature of the pursuit, and as affording him that class of subject which his art is able to express in the best and fullest manner.

Debarred, in great measure, from creating works of imagination, ideal beauty, or of poetical or dramatic force, by the lack of plasticity in his art, he can yet reproduce most vividly the life around him, either by means of portraits or compositions of every-day life — what the seventeenth and eighteenth century painters termed “genre” or “conversation-pieces,” in fact. And after all, the real life that goes on around him is surely of paramount importance and interest — as the methods of all the great painters testified that they thought — and by selecting for record the noble or beautiful types from the grand pageant of life that daily passes before his eyes in the great cities, the photographer becomes at once an artist and an historian.

At first sight, the problems presented to the portraitist seem simple enough. The model, carefully selected, stalked and studied beforehand, is brought a willing (or unwilling) sacrifice, and there needs, apparently, only an appropriate setting, a deft exposure (in both senses), an intelligent development. But the tyro soon begins to discover that, more often than not, despite all his care, his photograph misses fire, and the result is a weak and dismal caricature of the sitter. He finds that, seemingly easy, the taking of a portrait so as to bring out to the full the character and individuality of the sitter is a task of no little difficulty and subtlety, demanding much thought, selection and experiment.

From start to finish, the chief fact to be borne in mind is that the portrait must be *characteristic* of the sitter. The pose must be one he naturally takes when least self-conscious; the costume, that often worn by him; the expression, one he frequently assumes, and the background and accessories (though these

latter ought to be as few as possible), in accordance with his tastes and habits. Throughout, too, the portraitist ought to strive to make the sitter look his best; and, although seeking to express character, he should also, as far as possible, endeavor to conceal defects. In ladies' portraits, where the photographer has the rich surfaces and graceful lines of dress to aid him in his composition, beauty should be sought as well as character, though always subordinated to it.

If it be possible, the photographer should study the sitter for some time beforehand, when he is likely to be quite natural, and his pose and expression free and spontaneous; and of these, ever-watchful, the portraitist should select the happiest and most characteristic. If he is able to make sketches — however slight — as a help to memory at this stage, so much the better. The two great portrait-painters, Sir Joshua Reynolds and Vandyck, are both known to have adopted this method, and it was a frequent custom of the latter to invite the sitter to dinner, so as to observe his victim at those golden moments when, at peace with all the world, he would exhibit that side of his character the most genial and sunny. But as in these days of rush and jostle such a leisurely survey of the model is seldom possible, while the photographer is arranging the portrait he should encourage the sitter to talk — about himself, his hobby, or anything in which he is really interested — so as to unconsciously assume a characteristic attitude. And this the portraitist — who must cultivate the art of conversation while at work — should be quick to note. The costume chosen must be one frequently adopted by the sitter, so that the lines may express largely and simply the construction of the figure beneath it. It is recorded of Jean François Millet, the great French painter of peasant life, that he required his wife, who often posed for him, to wear the same dress about the house for days beforehand. In the case of a lady, that costume which follows the lines of her figure closest should be preferred.

Having now got some idea of a pose which is easy and natural, and which is neither strained nor a commonplace and conventional attitude, the photographer ought to be very careful to put his sitter in that lighting which suits him best. By a little experiment in the various lightings possible in the studio, the photographer will soon hit upon the effect which brings out beauty or character to the fullest extent. In our first illustration, a portrait of Grenville Fell, the well-known illustrator of the book of Job, it will be seen how the lighting of the head helps to reveal character and accentuates expression, at the same time securing an agreeable and harmonious effect. In a side-light, the more perfect side of the face ought to be illuminated more strongly than the other, where defects would thus be veiled in shadow. A light which falls from some distance above generally gives the most pleasing results (see illustration); but a top-light only should be avoided, as throwing too deep a shadow below the features. At the same time, the portraitist should eschew a stereotyped lighting, but try many and various effects, choosing the one best suited to the personality of the sitter. As a general rule, it will be found that the more rugged the character of a face, the more concentrated the light ought to be. The beauty of an aged face, for

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GRENVILLE FELL

BY E. O. HOPPÉ, F. R. P. S.

instance, would be more than half lost in the diffused light which might suit a person in the flower of youth. Too much care can hardly be given to the lighting, on which the success of the portrait and, indeed, the likeness itself, depends: in nine cases out of ten, in an unsuccessful likeness the lighting of the face is at fault. The photographer will soon find by experience that the simpler backgrounds are the most effective; and any background of an intricate or pronounced pattern, or in which there is much play of light and shade, ought to be strenuously avoided, as detracting from the interest, which must be concentrated on the chief object in the composition — the face. For the same reason, many or elaborate accessories are not advisable. The tone of the background is a very important matter, which depends entirely on the lighting of the face and figure; dark middle-tone backgrounds are, perhaps, most useful, but a light tone in certain cases, which must be determined by the artistic judgment of the photographer, may prove equally so. Broad in the mass, it should yet be somewhat varied in gradation of light and shade, to escape monotony; but this, if it be well chosen, will occur naturally. The illustrations reproduced are good examples of suitable portrait backgrounds, and also present well-arranged schemes of varying tones. The photographer will in time learn to plan his light and shade so that the pattern produced is beautiful and harmonious as a whole, and the pat-

terns he will be able to create are as illimitable and varied as nature herself. He will find that a few well-placed accents of pure white in his composition are exceedingly valuable; but they should be both few and concentrated, and should seem to occur of themselves, and not appear to be stuck on, as it were. Without them the composition is dull and uninteresting; they supply the requisite sparkle and life. Very rarely, indeed, does it happen that the highest lights are on the face or hands, nor will the photographer find it judicious to place them there; but they may be as near the face as possible, so that the points of chief interest may be centralized. The photographer must continually try the effect of the composition *as a whole* if he wants to get harmony and beauty, for they are purchased only at the price of much thought, labor and experiment.

The extremely important subject of *relative* tone or "values" in characterization can be only briefly touched upon here. A trained eye, able at a glance to detect false tones in the gamut of light and shade — from the highest light to the darkest shadow — in a photograph is of the utmost value, as not only solidity and atmosphere depend upon correctly related tone-values, but also color, local and reflected, is truly rendered only in monochrome photography by them. The portrait of Miss Maud Allan, the famous classical dancer, may be offered to the reader's notice as a good example of the truthful rendering of tone-values, suggesting, at the same time, the planes, the textures and the colors. This knowledge, subtle as it is, can be gained if the photographic student will spend some little time in making studies for tone only; and the drudgery will amply repay him by the added force and strength he will find his work has gained, if he compare his later with his earlier studies. Moreover, it will enable him to gauge the *absolute* tone in his work, so that the whole scale of tones in his photograph shall be neither too dark nor too light, resulting, in the first instance, in a heavy, black appearance, and, in the second, in a weak and washed-out print.

Too much study can hardly be spent on the hands as an aid to characterization and individuality in portraiture. By their shape they indicate the individual temperament almost as much as the features — see portrait of R. Dührkoop — while their action, if the moment be well chosen, may add immensely to the expression of mind and character. All temperaments may be shown by the hand, from the nervous and sensitive to the lazy and phlegmatic. The hands of the apostles in Leonardo da Vinci's "Last Supper" may be cited as a good example of how much emotion the hands are capable of expressing. The portraitist ought to exercise care that they aid the composition as well. In this, as in many other points, he will derive valuable hints from a study of the works of the great portrait-painters.

In men's dress, the lines ought to be kept as large and simple, and the masses as broad, as possible, and the same remarks may be applied to the more elaborate and beautiful dress of women, where the lines and surfaces give more scope to variety and richness. But in both sexes the dress ought to be kept subordinate to the head and hands — an end which the photographer will attain best by that lighting which suppresses unnecessary detail. No better example could be given

as a summary of the foregoing remarks on characterization in portraiture than our frontispiece, a portrait of Mr. E. O. Hoppé, by Rudolph Dührkoop, alike one of his happiest efforts, and a brilliant specimen of how these things are done by a master-hand.

In all the points in the expression of character much of the photographer's success must depend on his individual task, and on sympathetic and artistic treatment — a gift which no amount of training can impart, but which may be brought to perfection by unremitting study and experiment.



On the Rendering of Color-Values

GEORGE H. SCHEER, M.D.

(Concluded)

AS the result of experiments to produce a plate that would be more uniformly sensitive to all the colors, the corrected or color-sensitive plate was evolved. The process by which an ordinary plate is converted into a color-sensitive one is very simple, the plate being merely immersed in a suitable dye-solution for a brief period of time. There are different classes of corrected plates, each one especially sensitive to some particular color; but it is only the ordinary orthochromatic or isochromatic plate that is of interest to the average worker, the others being used chiefly in the arts. If the emulsion of an ordinary and that of an orthochromatic plate are examined by daylight it will be found that the former is of a light yellow color, while the latter has a decidedly pinkish tinge, because the latter has had a bath in some red aniline dye solution. Color-sensitive plates suitable for all ordinary work may be easily made from ordinary plates by any one who cares to go to a little trouble. The following process will be found to produce excellent orthochromatic plates. Take any ordinary plate and immerse it for two minutes in a bath made up of

Stronger ammonia	1 part
Pure water	100 parts

Then transfer, without rinsing, to the following dyeing-bath:

Erythrosine* solution (1 to 1,000, or about 1 grain to 2 ounces of water).....	25 parts
Stronger ammonia.....	4 “
Pure water	100 “

After soaking in this solution for from 1 to 1½ minutes the plate is taken out and placed in a vertical position in the drying-rack and allowed to dry. A dozen plates may be thus treated in a very short time. It is needless to state

* Erythrosine is a red aniline dye used in biological laboratory work. The best is made by Grüber and may be obtained from dealers in laboratory supplies. It is sold in original packages, the smallest containing 10 grams. The Spencer Lens Co., Buffalo, N. Y., quotes the 10-gram package at 45 cents (postage extra). A 10-gram package of erythrosine is sufficient to last any ordinary worker a long lifetime.

that the entire process, including the drying, must be carried out in the dark-room and with the weakest red light. While most of us will prefer to buy ready-prepared orthochromatic plates, which may be bought at a slightly higher price than the ordinary plates, this formula may prove of service to workers in small towns who cannot always obtain the prepared plates when wanted.

A plate that has been treated by the above (or a similar) process will be found to react quite differently to colored light than a plate not treated. The corrected plate will be found less sensitive to the colors of high actinic values and more sensitive to those of low actinic values; in other words, the extremes in actinic action are made to approach much nearer to the mean or average. The degree to which this equalizing of the actinic action is carried depends very materially upon the speed or sensitiveness of the plate. There are upon the market extremely slow orthochromatic plates for which the makers claim the power of absolutely correct color-rendition without the use of a ray-filter, but these plates are so slow that their employment in outdoor work is possible only under rarely favorable conditions. The medium and fast color-sensitive plates, while they give results very much superior to those obtainable on ordinary plates when used in the same manner, require the employment of a suitable ray-filter in order to obtain full color-values, because they are still somewhat hypersensitive to the violet and blue rays. The ray-filter absorbs a part of these active rays. The ray-filters employed in ordinary orthochromatic work are transparent screens varying in color from a light amber to a deep brown. As a general rule the depth of color in the screen indicates its power to absorb the blue rays, the lighter colored screens absorbing a smaller percentage than the darker ones; however, the color of a screen should not be taken as an absolute guide to its blue-absorbing power, as different yellow dyes vary in this respect. The cheapest screens, which are simply pieces of stained glass mounted in a cell, have only a very limited capacity for absorbing the blue rays — one that I tried at one time was not as effective as the amber-colored screen I generally use, although it was of a dark brown color.

Excellent ray-filters of known value may now be bought at such reasonable prices that it does not pay to go to the trouble of making one's own screens. The ray-filters on the market are of two types: the wet and the dry. The wet-cell filter consists of a water-tight glass chamber made by cementing two circular pieces of thin plate-glass to a glass ring of suitable thickness and enclosed in a metal jacket which has a collar to fit over the lens-barrel; the glass ring has several openings through which solutions may be introduced and withdrawn. Ordinarily, a solution of potassium bichromate is used, but other solutions will answer as well. In this type of ray-filter the layer of solution with which the cell is filled forms the screen, and it has the advantage that the strength of the solution, and therefore the absorptive power of the filter for blue rays, may be changed at will. The greatest disadvantage of the wet-cell filter is that it cannot be used in cold weather; there is apt to be, moreover, more or less trouble from leakage of the solution. The best dry filters consist of a thin film of transparent tissue colored



MAUD ALLAN

BY E. O. HOPPÉ, F. R. P. S.

with a suitable dye and securely enclosed between two thin pieces of optical glass; this screen is enclosed in a light metal jacket which fits the barrel of the lens. This form of filter is very light and convenient to carry and is withal a very efficient instrument. The cheap filters made of stained glass serve mainly as examples of what a ray-filter should not be, and their use should be discouraged. Whether to use a wet or a dry filter is a matter of personal choice with the worker; either one if correctly constructed is an effective device for sifting out the superfluous blue and violet rays. Personally I prefer the dry filter, for it is not only smaller and lighter than the other, but is free from leakage-troubles and can be used in the coldest weather.

Any ray-filter will necessitate an increase in exposure because it absorbs a portion of the chemically active light-rays, thereby reducing the actinic power of the light that strikes the sensitive plate-emulsion. The amount of increase in exposure depends entirely upon the percentage of blue and violet rays absorbed by the filter, and varies from two to three times the normal exposure for the lightest screens to twenty-five or more times the normal for the darkest ones. Ray-filters are designated as three-times, five-times, ten-times, etc., filters according as they increase the exposure three, five or ten times. When selecting a ray-filter one should be sure that it will answer the purpose it is intended for. Too dark a screen would be next to useless for outdoor work, because the long exposure it would necessitate could be given only on rare occasions when weather-

conditions were unusually favorable. As a matter of fact, full color-correction is hardly ever necessary in landscape-work, and in nearly all cases it is even undesirable. A light amber-colored screen will absorb a sufficient amount of the blue and violet rays to preserve the differential values in the high-lights and to hold back the sky portion of the view enough to allow the less highly actinic parts of the view to register in their proper values. As these light colored screens prolong the exposure only from three to five times, it is practicable to employ them under all conditions of wind and weather.

Let us now see what happens when a color-corrected plate is exposed behind a ray-filter or color-screen. All the rays of light must, of course, pass through the screen; as the rays pass through the screen a certain proportion of the blue and violet rays are absorbed by the screen and are thus eliminated: those blue and violet rays which are not absorbed and the yellow and red rays pass through the screen and lens and only these rays act upon the plate. Now then, since the screen eliminates the undesired excess of the blue and violet rays, and since the color-corrected plate is especially sensitive to the yellow and red rays, it is easy to understand that by using a corrected plate and a screen together we are enabled to record, at practically their true relative visual value, colors so different in their actinic values as red and blue. It should require no argument beyond the simple statement already made to convince the worker, who is not already familiar with the fact, of the vastly superior results to be obtained by the orthochromatic process. It is not only the simplest but the most effective means for rendering multicolored objects in their true values. It should be the method of choice whenever we are dealing with a subject that is not in monochrome. In landscape work a corrected plate and a ray-filter make the correct rendering of any and every form of clouds an easy task; moreover, greens, yellows, browns and reds will reproduce at their true values. For photographing sunlit snow-scenes orthochromatic plates and a screen are the *sine qua non*. Likewise, in flower photography these modern tools are indispensable. In portrait work, while it is not advisable to use a screen on account of the increase of exposure it necessitates, corrected plates will be found far superior to the ordinary for rendering the color of the eyes and hair and also of the dresses of the subject. One could go on almost indefinitely naming the subjects in which better results may be obtained by using orthochromatic plates; in fact, there are only a very few subjects in the realm of photography, especially in technical work such as photography paintings, furniture, pottery, fabrics and similar articles, where the use of corrected plates does not result in vast improvement of values. On the other hand, there are few instances, indeed, where the ordinary plate possesses any advantage over the corrected one. I remember an occasion when I exposed a plate on a bank of blue and purple asters against a background of green and got a poor result, because I used a corrected plate and ray-filter which caused the blue flowers and green foliage to appear of too nearly the same tone. In this case the plate rendered the values correctly enough, but it happened to be one of those rare instances where correct color-values were not wanted and where an



R. DÜHRKOOP

BY E. O. HOPPÉ, F. R. P. S.

ordinary plate would have given better results for that reason. Most of our best workers have practically discarded the ordinary plate and carry only color-sensitive ones, because the latter will do virtually everything that the former can do and a great deal that it cannot do.

A word must be said about the subject of halation. It is pretty generally understood that what we designate as halation is the result of the reflection, from the back surface of the glass of the plate, of some of the rays of light which have penetrated through the emulsion and the glass. Naturally, the more active rays are the ones that cause halation. Where a high-light is directly contiguous to a dark object halation results in a blurring of the outline of the latter, and it is this effect that is commonly thought of when halation is referred to. There is, however, another effect of halation which concerns us more directly in relation to the subject under discussion, and that is the effect of halation upon the sky-portion of view-negatives. The highly actinic light-rays from the sky in the view strike through the emulsion and are reflected from the back surface of the glass: these reflected rays again strike the emulsion from the back or under side and exert a further chemical action on the sensitive silver salt in the emulsion. The result is that the actinic effect from the rays emanating from this portion of

the view, already too strong, is still further augmented by the action of the reflected rays. It is true that when a ray-filter is used this effect of halation upon the high-lights is less marked, owing to the fact that the actinic value of the light from this portion of the view is greatly reduced by the filtering-process; still, the effect of halation is quite perceptible in the case of single-coated orthochromatic plates—even when a screen is used. For this reason double-coated or non-halation orthochromatic plates are very much better than the single-coated ones. For several years I have used this type of plate exclusively, with highly satisfactory results. They cost a little more than the single-coated ones, but are well worth the difference in price. The Standard Orthonon, Cramer Double-Coated Isochromatic, and Lumière Non-Halation Orthochromatic are all of this type, and each one of them is an excellent plate, capable of giving the very finest results.

A few remarks on the management of color-sensitive plates may not be out of place at this point. The worker should bear in mind that all color-sensitive plates are much more sensitive to red light than the ordinary plates are. They should, therefore, be loaded and unloaded only by very weak red light from a dark-room lantern with two thicknesses of dark ruby glass and the flame turned very low; even then it is best to expose the plates as little as possible to the light of the lantern. In developing it is best to use the factorial system if the tray method is employed, as it makes it possible to keep the tray covered and thus protected from the light during development. Tank development is, of course, the ideal system of development for these plates. Whichever system of development is used, it is always well to use a considerably diluted developing-solution, as much softer and finer negatives will result. When using the double-coated plates it is imperative that a dilute developer be used. The exposure should be as nearly correct as possible. Over-exposure will result in a flat negative and the loss of values, while under-exposure gives a contrasty negative and, when development is carried too far or when too concentrated a developing-solution is employed, results in over-correction of the blues.

To one familiar with the advantages offered by the orthochromatic process it seems very strange that there are still so many who fail to grasp the opportunities it offers them. The slightly higher price of the corrected plates can surely not stand in the way of their general adoption when once their advantages are known. It must be that many workers are still unfamiliar with the process and its opportunities or that they fancy its practical application fraught with difficulties. I trust that this article may awaken some of the former to the possibilities of orthochromatic photography, and the latter I assure that they will find the practice of orthochromatic photography in no way more difficult than the old photography. But as they truly say, "The proof of the pudding is in the eating." So invest a dollar in a ray-filter and buy a dozen color-sensitive plates and give them a trial. If the results do not convert you to the orthochromatic way of doing things your case is hopeless, and you had better pass your camera on to some one who will know better how to use it.

A Large Plate-Adapter for Small Cameras

H. E. BALFOUR

WISHING to make large-size portraits with my 4 x 5 camera, having a half-plate lens, the idea of making an extension-back appealed to me as quite practicable, and I set to work and made one which works perfectly, is light, and not at all inconvenient to carry around — can be attached and detached at will, and can be used for all classes of work, from copying to landscapes. In fact it increases the bellows-capacity of the camera and thereby allows of greater enlargement in copying and in telephoto work.

I presume there are others who often wish for a larger apparatus with which to take pictures of a larger size; indeed, there are many occasions when one throws away all considerations of bulk or weight and wishes only for the large camera.

It is just for those that I have written the following description, trusting that it will enable many to construct their own apparatus, and enjoy all the privileges of having two cameras of different size, without the extra expense these would involve if purchased.

The first essential is the wood of which to build it. Here is a suggestion: just *look around*, and as soon as you see a nice piece of hardwood, smooth and sound and of the required thickness, about three-eighths of an inch — well, just “take” it. There is no higher purpose to which the material could be applied, so there can be no harm in using it. I espied some nice letter-files with fine maple backs, and the backs answered the purpose perfectly.

Having procured the wood by any method whatever, so long as it is suitable, it must be decided just what size the back is to be made. Then it is necessary to buy a plate-holder for the large plate, in order to construct the back to fit the plate-holder as well as the camera. Having decided upon $4\frac{3}{4} \times 6\frac{1}{2}$, I consulted a multitude of catalogs, but found no plate-holders of the American style listed in that size. The one I thought most suitable is the holder supplied by the Eastman Kodak Company for the 4A Kodak, $4\frac{1}{4} \times 6\frac{1}{2}$, so that size was decided upon and the plate-holder and focusing-screen purchased. This focusing-screen is fitted with a hood to exclude light, and folds up very neatly, and is superior to anything one could construct for one's self for this purpose.

Now let us suppose you wish to make a $4\frac{1}{4} \times 6\frac{1}{2}$ back for a 4 x 5 camera. (Of course your lens must cover the larger plate if you wish to take ordinary views and portraits, but if you confine yourself to copying from 4 x 5 prints or smaller, then the 4 x 5 lens will do perfectly.) The opening in the backs of some cameras is smaller than the plate that the camera takes, and in others this opening is larger. The smaller the opening the farther the large plate must be placed from the camera-back, and if the opening is quite large the plate may be placed more closely. In any case it is necessary to find at just what distance it should

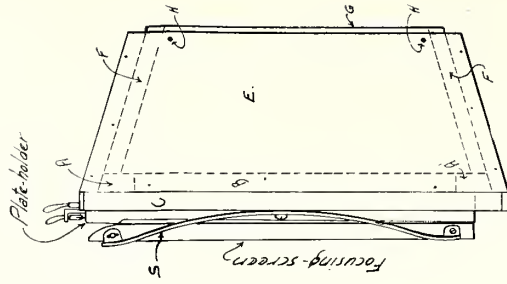


Fig. 3.

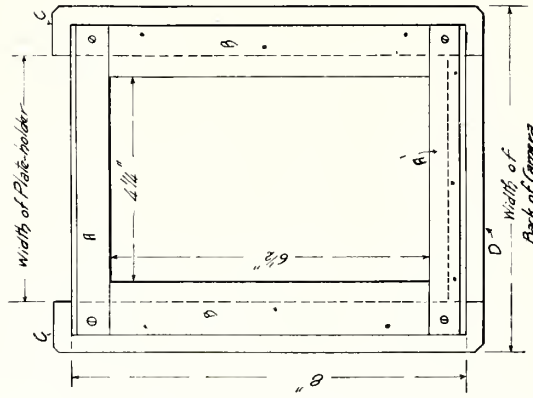


Fig. 2

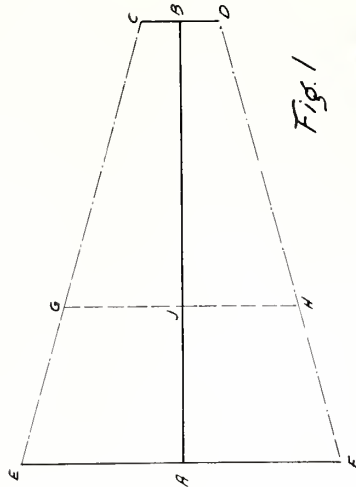


Fig. 1

$AB = f + 2'' = 9''$, $CD = \text{dia. of Lens} = 1\frac{3}{4}''$
 $EF = \text{long side of Plate} = 6\frac{1}{8}''$
 $GH = \text{size of opening in Camera} = 4\frac{3}{8}''$
 $IJ = \text{required dia. of ground-glass to opening} = 3\frac{1}{4}''$

be placed, so that there will be none of the plate cut off by the edges of the opening intercepting the light from the lens.

To ascertain this distance accurately, make a diagram like Fig. 1. Draw the horizontal line AB, equal in length to the length of focus of the lens plus two inches; if you wish to work close to the object, as in copying, this extra two inches will allow you to draw the bellows out that much further in focusing without cutting off any portion of the plate.

At the extremity B erect the perpendicular CD, bisected at B, and equal in length to the diameter of the lens. At A erect the perpendicular EF, bisected at A and equal in length to the long side of the plate; i.e. $6\frac{1}{2}$ inches in this case. Then join EC, FD, and, with a ruler held parallel to EF, measure between the lines EC, FD, moving ruler back and forth till the distance equal to the long side of the opening in the back of the camera is intercepted, and draw a line, as GH, cutting AB at J; now measure AJ, which will be the required distance that the plate must be placed behind the opening. With a lens of 7-inch focus and a diameter of about $1\frac{3}{4}$ inches, and the longest side of the opening in the camera-back $4\frac{3}{4}$ inches, we get the following data to work from: AB equals 7 plus 2, or 9 inches, CD is $1\frac{3}{4}$ inches, GH is $4\frac{3}{4}$ inches, and measuring AJ we find that it is necessary to place the plate about $3\frac{1}{4}$ inches from the opening. From this we see that the width of the sides of our new back must be $3\frac{1}{4}$ inches wide, and one side of each side-piece must be as long as the camera is high, and the other side of it as long as the back-frame made to hold the plate-holder.

We will now construct the back-frame. First cut out four pieces to make a frame of a size the width of the camera less twice the thickness of the wood, and $1\frac{1}{2}$ inches longer than the long side of the plate, or 8 inches; this allows a $\frac{3}{4}$ inch strip for top and bottom, and a little wider for the side-pieces, depending upon the width of the camera-back (see Fig. 2, which shows an inside view of the back-frame). This frame is represented by AA', BB'. Another frame is now made to place over this first one and to hold it together; this frame holds the plate-holder in position, and is represented by CCD. Cut the side pieces, CC, twice the thickness of the wood longer than the total length of the smaller frame — that is, 8 inches plus 2 thicknesses of wood — and the bottom piece, D, is made as long as the width of the plate holder and fits between the lower ends of the two side-pieces CC. When these two frames are placed one on top of the other, as shown in Fig. 2, there will be a projection the thickness of the wood all around the smaller frame. The side, top and bottom-pieces fit against this projection. Place a screw in each end of the pieces AA', screwing them firmly to CC, having previously spread some good glue between them. Then adjust the two pieces BB accurately, using glue and small brads to hold firmly to CC. Use glue at every contact-point and the frame will hold together very strongly. The end-piece is now placed in position and secured with glue and brads. The plate-holder slides in between C and C, resting upon D, so D should be of such a width that when the plate-holder rests upon it, its front opening shall register with the $4\frac{1}{4} \times 6\frac{1}{2}$ opening in the smaller frame.



SUNSHINE THROUGH THE MIST

WILLIAM H. ZERBE

Now the side-pieces, E, Fig. 3, can be made. The length is made equal to the length of CC, Fig. 2, and both ends are cut off at an angle as shown, so that the short side is equal in length to the height of the camera-back. The width is $3\frac{1}{4}$ inches, as previously determined. The top and bottom-pieces are made as long as A, Fig. 2, and the width can be found by applying them to the sloping ends of the side-pieces, E, Fig. 3. The side-pieces can now be attached to the back-frame as shown, Fig. 3, using glue and securing with brads; then the short end-pieces are placed between these latter and secured in the same manner. To further strengthen it, four "corner-posts," FF, Fig. 3, are glued in the corners, excluding light and giving a finished appearance to the inside, as well as greater strength. These are allowed to project about $\frac{1}{16}$ inch as shown, and strips of cigar-box, G, Fig. 3, are glued between these and to the four sides of the "box," serving as a rabbet to fit into the back of the camera, excluding light and insuring rigidity of connection.

Next, four pins, HH, Fig. 3, are made from wire nails and driven into the two sides, into holes previously located and made with a bradawl to ensure an accurate fit, as these are to enter the holes in the "snaps" on the camera to hold the back in place.



THE TWO SENTINELS

WILLIAM H. ARNOLD

Secure the screen-frame permanently to the back by two springs, S, Fig. 3, attached to the back-frame by screws in the center of the springs. Small screws are used to attach the ends to the screen-frame, as indicated. These springs hold the screen and plate-holder securely in position against BB, insuring correct focus. The springs can be easily cut from heavy brass.

Blacken the whole inside carefully, round off the corners with a rasp, and finish off with sand-paper. The whole can be covered with leather or stained in some dark color. A covering of leather, neatly applied, would give a very neat and workmanlike finish to the back, and would harmonize nicely with the rest of the camera.



"THE SEA, THE SEA"

MRS. W. W. PEARCE

The plate-holders have a groove around the edge, and the side and bottom could be made with a rabbet to fit into this groove; the frame with screen, as well as the plate-holder, would be slid in and out, when changing holders and focusing-screen. But the springs are more convenient after they are once made, and attached.

The writer obtained a great deal of pleasure from the construction and use of this attachment, and trusts that others may find the same pleasure in making the experiment, especially in view of the economy in the matter of necessary equipment for making larger negatives.



PORTRAIT
PIRIE MACDONALD



The Lumière Color-Process Simplified*

MAXIMILIAN TOCH

ANY one who has seen a Lumière Autochrome photograph, which is a direct positive on glass in the exact colors of nature, feels that photography has made an advance which marks even a greater step than the advance from wet-plates to dry-plates. Many photographers, both amateur and professional, after having tried out the new process most carefully, have given it up in disgust: first, because the directions entail such absolute care; second, because the percentage of good results is so exceedingly low, and, third, because the process was exceedingly expensive and in no instance could it be determined with anything like a measurable accuracy that the result would be successful. The original directions which came with the Autochrome plates indicated exceedingly complex methods, and the first step was a development for two and one-half minutes in absolute darkness, and it was impossible to judge, under the circumstances, what was taking place. Lately, an improvement has been made whereby a complex table is used in a faint light, and, after a given number of seconds, if the image appears the developer is strengthened. This improvement of the use of light offsets to a large degree the previous complex methods. I give an abstract of the various directions given for the development of an Autochrome plate, which is as follows:

First, development with a weak pyro-ammonia solution; second, reversing-solution; third, developing with dianol; fourth, destroying the developer; fifth, intensifying with pyro and silver nitrate; sixth, clearing the intensifier; seventh, fixing, eighth, varnishing. Between all of these manipulations the plate is washed very carefully, and the operation takes, after one has been accustomed to the details, about twenty minutes for each plate.

To start with, the plate may be under-developed or over-developed, and little or no remedy is at hand in either case, excepting the pyro and silver nitrate intensifier. The large number of manipulations, preceded in each case by washing, tend to weaken the film so that scratches or abrasions are very likely to occur; then, again, the whole process is based upon the supposedly correct exposure and, as there is no unit of measure for this, it is exceedingly difficult to know how long to expose or what to do in case of under or over-exposure.

These are a few of the reasons why so many men have given up the practice of Autochrome photography. The plates are decidedly expensive and, moreover, the percentage of good results is so small, owing to the complex directions, that none but a rich man can really afford to dabble with the process. For this reason I have set to work to see if I could not simplify the process and obtain just as good results as the best results obtained by Lumière, and, in this instance, a knowledge of chemistry stood me in good stead; for upon studying the entire system of development it was simple enough to determine why certain materials were recommended.

* Read before the Camera Club, New York.

In the first place, I could see no reason for the use of pyro-ammonia in a weak solution and then reversing the plate and redeveloping in dianol. I must not be misunderstood at this step, for I do not presume to say that the directions as given by the Lumières do not produce good results; in fact, they produce very good results in the hands of experienced operators, but there is no reason for the complex, intricate and abstruse methods which they indicate.

Without going into the details of the various experiments that I made, I discarded the first and second developers of Lumière and used the ordinary metol-hydroquinone, to which I added a very small quantity of bromide. As I do much printing on developing-papers, the developer which I generally use in my laboratory is composed of one ounce of metol, one ounce of hydroquinone, one pound of C. P. sodium sulphite, one pound of C. P. sodium carbonate of soda and one gallon of water. This makes my stock-solution which I use for everything except lantern-slide plates, but I dilute it as the case demands. This was the first developer with which I had success and, having the Autochrome-light in my dark-room, I poured the developer on the plate, rocked it thoroughly, then turned on the light and found that in about sixty to seventy seconds my plate was thoroughly developed. With this developer I could look through the plate into the light and determine when it was sufficiently dense. If I found it was coming up too rapidly I added bromide. If I found it was coming up a little too hard I transferred the plate into a dish of plain water, rocked it and let it develop itself, and then without washing I transferred it into a dish of reversing-solution made according to the Lumière formula: fifty ounces of water, fifty grains of potassium permanganate and four drams of sulphuric acid. By the way, this solution should be kept in the dark, and after it is a week old it should be filtered; it then remains perfectly clear.

It is necessary when putting the plate in the reversing-solution to rock it and keep it in there for three or four minutes. I could show an otherwise excellent color-photograph which did not remain in the reversing-solution long enough and presents defects which thus can be avoided. After leaving it in this solution it should be taken out into the broad daylight, or, if developed in the night, directly under the artificial light, washed in running water until all the permanganate is washed off; and then the plate should be put back into the same tray containing the original developer and developed in the light until the plate turns uniformly black. After it has turned uniformly black look through it at the light and the chances are that the plate will be a very good Autochrome picture.

I have obtained just as good results by using an edinol developer reduced with seven parts of water, and on the redeveloping I have produced excellent results by using plain standard pyro; but I have a distinct dislike for pyro because it blackens the hands and finger-nails, and neither edinol nor metol-hydroquinone has this tendency.

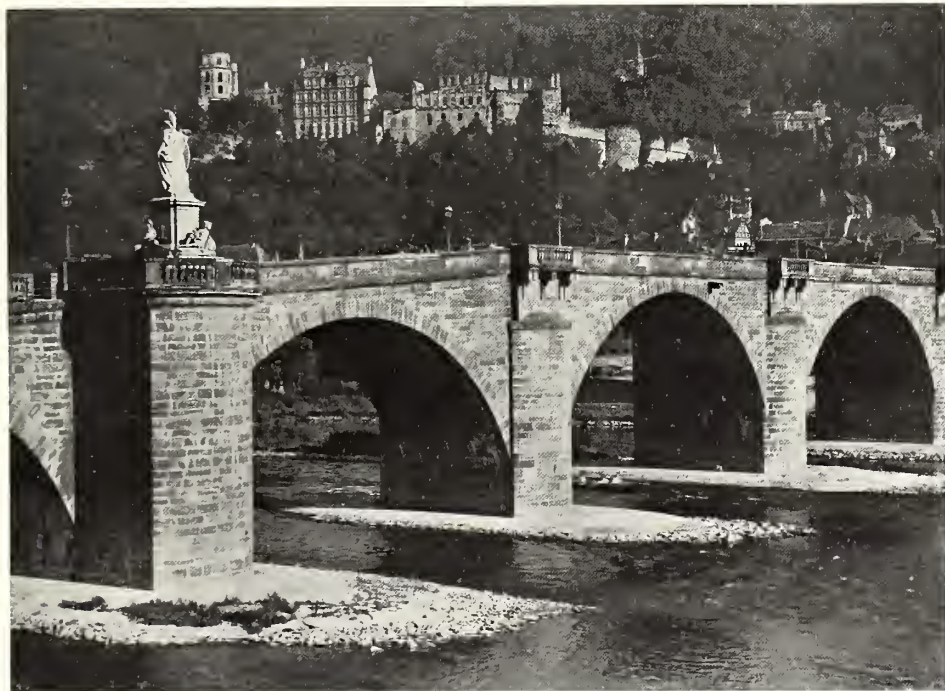
Here, however, comes the crucial point. If, after the second development, which has just been described, it is found that the picture is clear and shows up all the colors truly, wash it for two or three minutes in running water, allow it to



THE STUDENT

S. K. REYNOLDS

dry, varnish it and the picture is done. If, however, it is found that it is weak and the colors are not brilliant, intensify it, not with the messy nitrate of silver formula prescribed by the Lumières, but with simple mercuric chloride (corrosive sublimate) and bring out the strength of the intensification by means of sodium sulphite. To go into details, take one ounce of corrosive sublimate and one ounce of potassium bromide, and add to a quart of water. The addition of the bromide enables you to dissolve the mercury much more rapidly, resulting in a much more concentrated solution. This, in a very short time, brings out a strong and brilliant negative effect on the plate, which is perfectly white; transfer to the tap and wash it for two or three minutes, then transfer to a tray in which there is a 20 % solution of sodium sulphite and the picture turns black immediately, and comes up much more brilliantly than it did before.



OLD BRIDGE, HEIDELBERG

HARRY D. WILLIAR

As to the question of fixing, this may be omitted if desired. I find that fixing a Lumière plate always reduces its brilliancy, and I furthermore find that those plates which I have not fixed have been in good condition for six months. If a plate is too dense, fixing bleaches out some of the denser portions and makes it more translucent. If a plate is just right I do not advise fixing, but simply washing and hardening in chrome alum, if you choose, or, if the tap-water is sufficiently cold, no hardening will be necessary.

So, summing up the operation, it consists of developing the plate, reversing the image, redeveloping and washing; and if the exposure be correct the result will be correct. Concerning the exposure there has been a great deal of guess-work up to now, as to the best of my knowledge it is impossible to say how long a Lumière plate should be exposed.

Regarding the light in the dark-room, I made several experiments concerning this and find that there is no danger of fogging, whatever, by the new light produced through the "Virida" papers. If one has an eight C. P. incandescent lamp plates can be loaded three feet from that lamp, and development can be started with absolutely no chance of fog; in fact, I have used the ordinary dark-room ruby-lamp and obtained only a very faint red fog when I exposed the plate too long to the light; two or three seconds' exposure three feet from a weak ruby-lamp is not harmful.



AT THE GARDEN-PARTY

F. M. STEADMAN

A Practical Analysis of Exposure-Elements

F. M. STEADMAN

THE subject of exposure is ever new. In the chain of photographic practice exposure is undoubtedly the weakest link. Aside from snapshots in bright sunlight, it may safely be said that in amateur practice not more than two or three negatives in a thousand are correctly or normally exposed; and when it is realized that these result from *guessing* correctly, it is seen that exposure as an exact science is sadly neglected.

Little by little the antipathy is dying out. I say it literally, for it is true that strong prejudices seldom disappear except with the death of those who hold them. Advancement is made through the younger workers, who are more ready to avail themselves of the improvements of the day.

In the sense and the organs of sight nature supplies us with no means of knowing that there is such an energy in the world as actinism. This is clearly evident, since the world remained in complete ignorance of that energy until it was *discovered* by the intelligence of men. Man's sight had not and could not have revealed to him this truth of nature. How, then, is it possible for any one to hold that the eye alone should be able to judge the chemical strength of light?

It is only with the aid of much experience that one can arrive finally at some certainty in exposure; and this is through the aid of the intellect and the memory, rather than by means of the vision. Confront the experienced worker with an entirely new condition of subject and light and he is almost certain to give an incorrect exposure.

It is my purpose here to explain the truths of exposure in plain language, so that they may easily be understood by the layman.

First, it is clear that when any method has given us a single correct exposure for a specified diaphragm, under any conditions of plate and subject, it has done its full duty, since the exposure for any other larger or smaller diaphragm may immediately be found by computation — by halving the exposure for each next larger stop or doubling it for each smaller one.

Then, to begin the analysis of exposure-conditions proper, let us suppose that a person of average complexion be placed under any suitable light and that, on holding a strip of any kind of tinting-medium near the subject's head and turning the strip to face the brightest light-source, it be found by repeated trials that in four seconds a "least visible tint" is secured on that medium. (In order to facilitate the observation of this "least visible tint" it is necessary to expose a small spot of the tinting-strip through an opening, as a hole cut in the cover of an ordinary pocket note-book, the cover of the book being raised in searching for the tint.) In theory it is immaterial what speed of tinting-medium has been used in this experiment. It may have been P. O. P., or gaslight paper, which tints in about one-fourth the time; or a strip of roll-film, which will tint in about one-sixteenth the time required by P. O. P.

Now this four seconds is simply an indication of the actinic of the light, since, had the light been, say, four times as strong, the "least visible tint" would have been secured in one second instead of four; and had it been only one-half as strong, eight seconds, instead of four, would have been required.

Using, now, this four seconds as a trial exposure in photographing the subject as described, we may proceed to expose a number of plates of any selected brand, using for each exposure a different diaphragm in the lens, but giving the exposure of four seconds in each case. Now, no matter what may be the speed of the plate, the result secured *with some particular diaphragm* would show a correct exposure.

Now this diaphragm, found, as explained, by the simplest experiment, which could be performed by any careful worker, is called the "speed-diaphragm" of the particular plate or film which was selected for trial. It is the speed-diaphragm of that plate or film, for the reason that it is the one which, if used, will allow the "first appearance time," of the light or the time required to create the "least visible tint," to be used as the exposure. Had the plate or film been twice as fast as it was, the diaphragm *half as large*, or the next smaller one, would have been found to create the correct chemical exposure; and had it been only one-fourth as fast, then the diaphragm four times as large (in area) would have proven to be the "speed-diaphragm" sought.

The above applies to the photographing of the subject of average complexion as described; but if it be desired to photograph a person of very fair complexion, only one-half the ascertained exposure would be required to obtain the correct chemical effect in the plate. This modification may be dominated by using for the very fair complexion the factor one-half and by altering the ascertained exposure or the area of the speed-diaphragm according to this factor.

The three truths, then, which must be dominated are seen to be, first, the strength of the light; second, the speed of the plate or film; third, the subject, its variance from the normal.

It has been seen that the strength of the light is perfectly comprehended by the time required for it to create a "least visible tint" on some tinting-medium. This interval of time in practice is generally spoken of as the "light-factor."

The second element — the speed of the plate or film — is fully comprehended by its "speed-diaphragm," as explained; and the third element, that of the subject, is comprehended by making a logical classification of subjects in nature and giving to each one a factor — as 2, 4, or $\frac{1}{2}$, etc. — according as it requires more or less exposure than a normal subject in the same light.

These may be called the *natural* elements of exposure, and they should be understood perfectly by every one who practises photography. In fact, one cannot practise photography *intelligently* without this comparatively simple preparatory knowledge.

These natural and almost self-evident facts have been arranged into various *systems* of exposure, and in most cases these systems have been made purely arbitrary in their nature by using, instead of the *natural* standard tint — i.e., the "least visible tint" and any convenient medium — a tint and a tinting-medium, both arbitrarily selected. This enabled a special apparatus or actinometer to be exploited commercially; but, in the opinion of the writer, the cause of exposure has been materially retarded in its growth by withholding from the public these simple and natural truths which lie at the base of all exposure problems.

OUR lives in every direction, every occupation, are filled with the presence and influence of Art; and as every day of our lives we are called upon to exercise a choice, or to express an opinion bearing on the subject, does it not become a sort of moral obligation to exert a wise choice, to express a just opinion and, since there is a good and bad, a true and false in Art, to learn to distinguish between them? — LUCY CRANE.

EDITORIAL

The Passing of the Head-Rest

ONE by one the constituents of the photographer's conventional studio equipment are reaching the end of their usefulness and are fast disappearing. That old, familiar accessory, the head-rest, is among them, and with it what was once an important industry. Its disappearance has been preceded by the burnisher, a heavy, clumsy, troublesome and time-consuming implement, and no one has regretted the end of its brilliant career except the manufacturer and the dealer, both of whom profited considerably by its sale. The cold, firm clutch of the head-support rarely, if ever, contributed to the much-sought-for pleasant expression, neither was it calculated to impart ease or grace to the pose of the sitter, and the adjustment of its burly form was often accompanied by startling and ominous sounds. Yet it managed to hold sway for more than half a century, until, with the advent of high-speed dry-plates, its use has become more and more restricted, so that only a few studios continue to recognize its utility. Many eminent practitioners have ceased more than ten years ago to work with the head-rest, and would prefer to give up portrait-photography than to resume its use, on account of the psychological and irritating effect of the instrument upon the sitter. Those workers who have taken this advanced attitude claim that the head of the sitter, freed from its restraining influence, is disposed to oscillate gently in the direction of the lens, out of the plane of optical sharpness, thus producing a degree of indistinctness highly desirable and which could not be obtained in any other way. On the other hand, one finds here and there a practitioner who still clings with affection to the accessory, finding it quite useful during necessarily prolonged exposures when the light is weak, or for other reasons, in which cases the support is not pressed against the head or neck of the sitter, but rather against the crown of the hat and accompanied by a remark calculated to divert the sitter's attention. All the same, the days of the ponderous, rattling source of irritation are practically over and will soon pass into the realm of forgetfulness.

Farewell to thee, old, time-worn Friend!
All things at last must have an end —
Your time has come to go away,
For "every dog must have his day."
You have served us, long and well;
Many secrets you could tell.
The bridal-pair, the rustic youth,
The palsied dame, the man uncouth,
From grandparent to infant small,
Your firm embrace has held them all.
Farewell!

The Importance of the Rochester Convention

LIKE the perennial spring-song comes the annual appeal in behalf of the National Convention. Since the day of their election, last summer, President Barrows and his committees have worked incessantly to make the Rochester Convention, July 19 to 24, a genuine triumph. Their efforts will be crowned with success; for, barring a conflagration or an earthquake, the Rochester reunion will be an uncommonly brilliant affair, and will occupy a prominent place in the history of the Association. The Industrial Section, alone, will be on a scale of magnificence and completeness rarely equaled, for Rochester is universally recognized as the largest photographic manufacturing-center in the world, and the resources of its industries will be revealed in a manner that will be a surprise to the visitors. The art-display will be of unusual extent, variety and beauty, the foremost photographers of the country having pledged their support, as may be seen by the list published elsewhere in this issue. A feature of this department of the convention will be the work of many pictorialists of rank — an innovation which attests the progressive as well as the liberal policy of the present administration. The members of the several committees are working together with admirable intelligence, zeal and unity of purpose. This, in itself, spells success. Fortunately the Convention Hall is spacious and modern and, therefore, capable of meeting all the demands made upon it. The exhibitions, sessions and demonstrations, including the School of Photography, will be held, therefore, under one roof. The various features and attractions of this great event are set forth in another column. Certain it is that the visit to the Rochester Convention deserves the serious attention of every live practitioner on account of its educational value alone. To those who have neither the means nor the time to indulge in a journey to the Dresden Exposition, this summer, the Twenty-ninth National Convention will be an admirable substitute, although there are many photographers who plan to participate in both events. While the Photographers' Association of America is a purely professional organization and cannot consistently admit amateurs to membership, the present Executive Committee has manifested an unusually sympathetic and liberal spirit in that it has arranged to receive them into the Convention Hall on the same terms granted to associate members, who pay a fee of two dollars instead of the usual initiation-fee of three dollars and annual dues of two dollars, or a total of five dollars. This, then, entitles the amateur to all the privileges of active membership, except that he cannot vote or compete for prizes.

The Executive Committee is to be thanked for this concession to the amateur, as well as for its decision in favor of admitting the general public one day during the convention. This action is a step in the right direction and a privilege to which the professional's patrons — past, future and present — are clearly entitled; for not otherwise can they contemplate, understand and appreciate the progress of photographic art and the significance of selection due to merit.

OUR ILLUSTRATIONS

As is invariably the case, R. Dührkoop has caught a natural and characteristic pose in his portrait of E. O. Hoppé, F. R. P. S. It represents that moment of waiting just after a match has been struck and before the pipe is lighted. The likeness is good, as is also the spacing of masses, and there is that "bigness" of effect always so pleasing in Dührkoop's work. Data: July, 5 P.M.; rainy weather; 6 seconds exposure; Seed plate; platinum print.

We regret our inability to secure any data regarding the three superb portraits by Mr. Hoppé in time for use before the date for going to press.

"Sunshine Through the Mist" is one of Wm. H. Zerbe's ever-pleasing landscapes, which unavoidably loses some of its subtle tone-differentiation and delicate atmospheric quality in reproduction. The effect of misty sunlight is fairly well retained, however, and the composition well balanced as a whole. Data: August, 6 A.M.; sun through the mist; rear combination of Goerz lens, 24-inch focus, $f/13$; $\frac{1}{2}$ second exposure; Orthonon plate; pyro-acetone developer; carbon print.

In "The Two Sentinels" Wm. H. Arnold has given us one of those decorative treatments of trees which are always so charming. This is a field which more camerists should enter, for it is an interesting one. The present subject has the advantage of a quiet, subdued background and a little sentimental interest in the trees. Data: November, 3 P.M.; dull light; lens of 8 $\frac{1}{2}$ -inch focus, $f/11$; 2 seconds exposure with color-screen; Orthonon plate; ortol developer; Angelo sepia platinum print.

To photograph children successfully when all unconscious of the camera is, indeed, an art, and it is this quality which characterizes the work of Mrs. W. W. Pearce. "The Sea, the Sea" furnishes an example in point. Data: July, 3 P.M.; fairly good light; Bausch & Lomb R. R. lens, $f/8$; $\frac{1}{50}$ second exposure; Orthonon plate; blue-green Ozobrome print.

One of the most striking studies by that successful New York portraitist Pirie MacDonald, photographer of men, is the one reproduced in this issue. It has all the charm of easy naturalness, and the lighting, especially the effect of a concentrated source at the left, has been admirably handled. Data: Dallmeyer lens, $f/8$; 1 $\frac{1}{2}$ seconds exposure; Cramer Banner plate; sepia platinum print.

S. K. Reynolds, a devotee of the gum process, contributes "The Student," which we take to be in the nature of a satire. The composition includes a considerable number of accessories, but they are all so intimately associated with the average student of today that they are quite justified. The advisability of using the gum-process for such a subject, however, is rather

questionable. Data: magnesium light of about 1 second duration (a blow-through lamp was held to the left of the sitter, about ten feet away and five or six feet above the floor); R. R. lens, 8-inch focus, $f/8$; Stanley plate 5 x 7; metol-hydro developer; gum print.

An excellent architectural study is seen in the historic "Old Bridge, Heidelberg," with the famous University in the distance. Of the many photographs of this scene, none which has come to our attention is more pleasing. There is a stereoscopic effect about the bridge itself which gives proper distance to the buildings back on the hill. Data: 3 P.M.; fair light; Goerz lens, 6-inch focus, stop 8; Hammer Plate; $\frac{1}{5}$ second exposure; metol-hydro developer; Cyko enlargement.

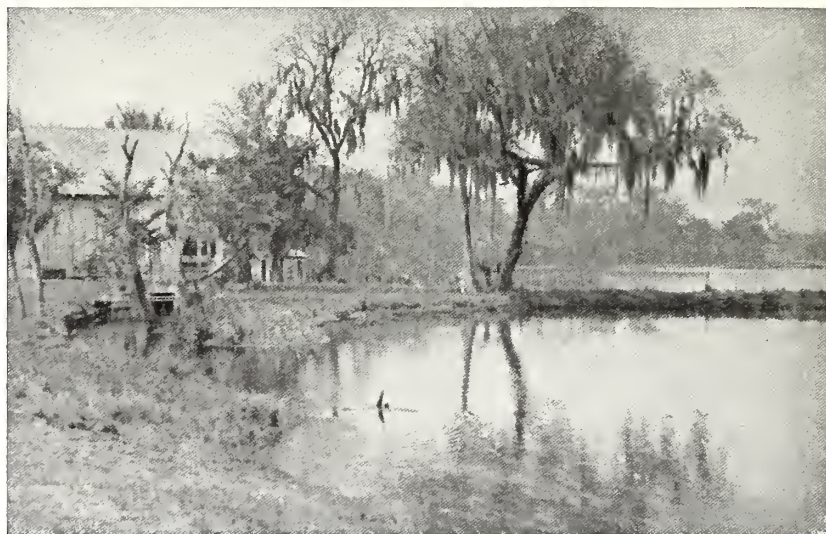
F. M. Steadman's "At the Garden-Party" brings to Northerners the pleasant remembrance of the beautiful costumes often seen at *al fresco* functions in the South. Mr. Steadman's picture is notable chiefly for the graceful pose of head and arms and the preservation of texture and gradation in the gown. No data are available.

The Monthly Contest

SEVERAL historic pictures of great interest were submitted. Of them "Castle St. Angelo, Rome," by H. Howard Hyde, was unquestionably best. This famous mausoleum of Hadrian has been seen from many viewpoints, but never better than the present, which shows the bridge over the Tiber rather than the view across it. Data: June, 6 P.M.; good light; Eastman N. C. film; Dynar lens, stop $f/6$; 1 second exposure; pyro developer; red chalk Ozobrome print.

The second prize-winner is a pleasing pictorial treatment of "Ponce de Leon Springs, De Land, Florida," by A. F. France. This brings to mind the unsuccessful search for the Fountain of Perpetual Youth in 1512, and the second trip of Ponce de Leon in 1521, when he came upon the springs shown in the photograph and gave them his name for their curative powers. Data: 3A Kodak, Collinear lens, $f/16$; $\frac{1}{5}$ second exposure; enlargement on P. M. C. bromide.

E. M. Astle's third-prize print of "Gilbert Stuart's Birthplace" is full of that soft detail and poetic charm which pervades all his work. Never has a better photograph of the early home of the famous portrait-painter of Washington, Revere and other noted personages been made. This was recognized by Wilkins Uplike, and the print was reproduced in his second edition of the "History of the Church in Narragansett." It is by permission of D. B. Uplike, of The Merry-mount Press, Boston, that we are enabled to use the photograph here. Data: April; dull light; Seed's Non-Halation Ortho plate; $\frac{1}{2}$ second exposure; metol-hydro developer; platinum print.



CASTLE ST. ANGELO, ROME

H. HOWARD HYDE

FIRST PRIZE — HISTORIC PICTURES

PONCE DE LEON SPRINGS, DE LAND, FLORIDA

A. F. FRANCE

SECOND PRIZE — HISTORIC PICTURES



THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus.

Studies in Composition

Balance

MOST of us can say with Beatrice, the heroine of "Much Ado About Nothing," "I have a good eye, I can see a church by daylight."

There is, however, a vast difference between seeing and observing. It is one thing to "see a church by daylight" and another to observe it in detail, to appreciate its architectural proportions, and to know whether it possesses beauty of design. To many of us a church is a church, and it is nothing more.

It is the same with a landscape. The unobserving eye will notice the separate points of the view—the river, the trees, the hillside and, possibly, the clouds in the sky. The observing eye will notice the influence of lights and shadows, the arrangement of lines, the grouping of the different objects, and perceive which is the chief or leading note of the scene.

Suppose that the two are amateur photographers. One of them will take no note of where his camera is placed, and the objects will appear haphazard—just as they chanced to come within the angle of the lens. The second amateur, he of the observing eye, will place his camera in such a position that the point of view chosen will present the objects in harmonious relations to each other.

When the two plates are developed and the pictures printed the one will be a composition of artistic merit; the other will be one of the many, many photographs which are made daily by amateurs who do not possess the observing eye. One picture will be a record of the objects within the angle of the lens; the other will have balance and unity, and will satisfy our sense of order and harmony. This is what proper arrangement of lines and balance of space mean, and why we remember pictures conforming to these rules.

By balance in a picture is meant the arrangement of the objects so that the lines on one side balance those on the other, and is merely carrying out an involuntary principle of nature. We all realize the unpleasant impression produced by the sight of a top-heavy load, or a lopsided building, or, in fact, any object which is out of balance or proper and symmetrical proportions.

Stability is one of the fundamental laws of nature. One notes it in the shapes of objects, in their equilibrium and balance.

Photographs—and particularly landscape-views—often show this one-sided effect. I have before me, as I write, a picture which illustrates this tendency. It is a view on a lake-shore, and the camera has been placed so that half of the picture shows the bank and the other half the water. The sloping bank is covered with scattered trees of beautiful proportions and admirably grouped in regard to picturesqueness. The other half of the picture gives a glimpse of the lake and, low down on the horizon, a faint line of wooded shore. The space above this is filled with a perfectly white sky.

This picture, when looked at from a distance so as to perceive simply the masses of light and dark without any detail, immediately produces the impression of a lack of balance. The detail is good in the trees and bank, the shadows soft and delicate, but, taken as a whole, the picture is without merit as an artistic production.

A good way to judge whether one's photographs have the proper balance is to view them far enough away to blot out detail and to show only the arrangement of the light and dark. If they balance each other and give the impression of proper proportions, then the picture will pass muster as a good composition. This studying of the placing of the lights and darks of a picture conveys an impression of beauty which is entirely independent of the *motif* of the picture.

It was quoted in a former article that photography as well as painting is a space-art, and one must fill the spaces of his picture with objects so placed as to seem to belong properly in the places assigned them. Thus only will one embody in his pictures the feeling of balance, and give the impression of unity and completeness in his composition.

One should aim at effect as well as detail. Unless one is doing record-work, where the picture must be true to detail, it will be far more satisfactory to strive for an artistic effect rather than for a microscopic facsimile. A clever observer says of art that it does not aim at resemblance, but at expression. By following this method one will obtain atmosphere of beauty and of grace in his photographs.

New Guild-Features

PHOTO-ERA not only endeavors to keep in the vanguard of photography, giving the latest developments in the art and practice, but is always adding new features designed to benefit its subscribers and readers.

Among the things found specially helpful to the members of the Guild is the monthly picture-competition. In returning unsuccessful prints it has been the custom to send with them a card reading as follows:

*"Dear Guilders:—*We return herewith your contribution to our last monthly competition, which has just been judged. An announcement of the awards will be found in the issue of PHOTO-ERA which appears on the twentieth of next month.

"Appreciating your interest in the Guild, and hoping to see more of your work in future competitions, we are,

Yours faithfully,
PHOTO-ERA."

Instead of this formal card, it is the intention of PHOTO-ERA to send to each competitor not receiving a prize or honorable mention a personal letter from the editor of the Guild stating the faults of the prints in regard to technique, composition, artistic merit, illustrative value, etc. This is practically a free correspondence-course in the composition of pictures, and one which would be expensive if conducted by any of the correspondence-schools. The object is to help the Guilders to make better pictures and to learn the points wherein he fails and show him how to correct them.

The aim of PHOTO-ERA is, in every way possible, "to lend a hand" to the beginner in photography; and in order partially to console those who, having striven well, yet have not succeeded in winning a prize or even honorable mention these competitors will receive a consolation reward: each will have the privilege of giving to some friend not a reader of PHOTO-ERA a three-months' trial subscription to the magazine. This is a most generous offer, and one which will be appreciated by the members.

Another feature announced in the June number and reprinted in this is the fact that PHOTO-ERA guarantees the genuineness and trustworthiness of every advertisement that appears in its pages. Read this announcement carefully. In these days of fraudulent advertisements it is worth a great deal to be assured of the truth of an advertisement. PHOTO-ERA has always taken pains to investigate all advertising-matter offered for its pages, and this makes the magazine a specially good medium for the advertiser as well as for the purchaser of the commodity advertised.

Many letters have come to the editor expressing pleasure in the articles on composition now running in the Guild. These articles are to be continued, and will be made both short and simple, so that one may comprehend readily what are the points under consideration. Many

of our Guild members are already using the diagrams published in the May number with very satisfactory results, and we hope that the aid thus afforded will bring more successful prints to our competitions.

Sensitizing Rough Drawing-Paper

ONE of the pleasures of photographic printing is the preparing of one's own sensitive paper. The rough drawing-papers are admirably adapted to certain negatives, such as portraits with no fine details, and to landscapes with broad masses of lights and shadows. The following method of preparing such paper will be found to give most satisfactory and artistic results.

The paper is salted and sized in one process. Make up a solution of 192 grains of arrowroot; 144 grains of chloride of ammonia; 15 grains of citric acid; 30 grains of carbonate of soda and 20 ounces of water. Rub the arrowroot to a cream with a little water, then boil in the twenty ounces of water till perfectly translucent. It will take from ten to fifteen minutes. When cool add the other ingredients in the order given.

Place the paper on a flat board, turn a quantity of the solution over it and brush it thoroughly backward and forward and at right angles until the paper is thoroughly covered. The brush used is a round, medium-sized camel's-hair or sable. The solution must be well worked into the depressions of the paper to ensure uniform printing. Pin up to dry, and when dried sensitize with nitrate of silver made of forty grains of nitrate of silver and twenty-five grains of citric acid to each ounce of water. The sensitizing-solution is applied by gaslight and the paper dried in a dark-room free of dust. Brush the solution on the paper lightly and note that the surface is well covered.

Print until detail is well out but not much darker than desired in the finished print. Tone in any good gold or platinum solution, or in a combined bath. The gold and combined bath gives warm sepia tones; the platinum, gray tones.

The preparation of this paper is very simple and well worth the making.

Intensifying Prints

GASLIGHT prints which are under-exposed may be intensified by mercuric chloride; but the process is not to be commended, for the reason that the gaslight paper is so cheap that it is simpler to make a fresh print than to attempt bringing the under-exposed print up to normal. In the case of under-exposed enlargements on bromide, which are more expensive and require more time in making, intensification is worth trying. The intensification changes the color of the print to a warm brown, which is, however, not a detriment. The print for intensification is bleached in a saturated solution of mercuric chloride to which has been added two drops of hydrochloric acid to each ounce of the chloride solution. The print is first bleached in the solu-

THIRD PRIZE
HISTORIC PICTURES



GILBERT STUART'S BIRTHPLACE

E. M. ASTLE

tion in the same way as the negative, well washed and then placed in a tray face up and deluged with ferrous oxalate developer. The developer is made by mixing one ounce of a saturated solution of ferrous sulphate with six ounces of a saturated solution of oxalate of potash. When washing the print from the mercuric chloride bath add a few drops of oxalic acid to the washing-water. This will prevent the formation or restrain the formation of insoluble ferric salts.

Weak platinum prints may be intensified by lead nitrate. The intensifier is made by dissolving in 5 ounces of water 90 grains of nitrate of lead, 200 grains sulphocyanide of ammonia, and 2 grains of chloride of gold. This redeveloping of the image gives blue-black tones very pleasing for certain prints.

An under-printed platinum may be intensified with uranium, the prints having warm red and brownish tones, according to the quality of the

print. Dissolve in 20 ounces of water 10 grains of nitrate of uranium, 20 minims of glacial acetic acid, 10 grains ferricyanide of potassium, 25 grains sulphocyanide of ammonium. After the print has attained sufficient intensification place in a bath made up of one minim of acetic acid to each ounce of water, wash well and dry.

One can often make a beautiful print by this method from prints which have been discarded as spoiled, owing to the weakness of the image.

There are many ways — and one more — of remedying one's photographic mistakes.

A new tank develops clean, but it must be scrupulously cared for or stained negatives will eventually be the result.

Remember some persons want a photograph, not a likeness. Give them your best skill and use the best materials and they will have both.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Baylston Street, Boston.

Prizes

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

Subjects for Competition

June — "My Favorite Poem." Closes July 31.

July — "Outdoor Pastimes." Closes August 31.

August — "At the Seashore." Closes September 30.

September — "General." Closes October 31.

October — "Vacation-Scenes." Closes November 30.

November — "Glimpses of Foreign Lands." Closes December 31.

December — "Self-Portraits." Closes January 31.

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January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

August — "In the Country." Closes September 30.

Awards — Historic Pictures

First Prize: H. Howard Hyde.

Second Prize: A. F. France.

Third Prize: E. M. Astle.

Honorable Mention: F. W. Greenman, Joseph M. Rogers, Clayton P. Chamberlin, Wm. B. Groff, Jr., and A. B. Hargett.

Meritorious work was submitted by Mrs. Wm. Durrant, J. A. Lewis and Eben T. Wood.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

WILL the Canadian members of our Guild please send United States stamps instead of Canadian stamps when desiring answers by mail? The stamps of Canada cannot be used in the States to send letters to Canada.

DORA BURNS.— Do not send pictures to the competitions which are made on post-cards. One of the points in judging a picture is its mounting and artistic finish. There is nothing artistic about a post-card. Use rough gaslight paper instead of the glossy for your portrait-pictures, and use the glossy only when wishing to make pictures for reproduction or to show fine detail for some special purpose.

ALIDA D. W.— Unless a very safe light is used in developing Autochrome plates there is danger of fogging. In beginning development keep the tray in the dark, using a cover for the first few minutes and rocking the tray gently. Your lamp should be shielded with the Virida paper, which is made by the Lumière Co. for use with the ordinary dark-room lantern.

T. H. G.— In brush-development of platinum prints with glycerine use a soft camel's-hair brush for each solution of the developer, so as to be able to carry on the developing smoothly. Three sizes of brushes are none too many, as the smaller ones are for the fine work such as lines, soft shadows, etc.

S. D. F.—The small hand-camera about which you ask is one of the best fixed-focus cameras on the market. The new model gives an oblong picture instead of the square as in the old ones. The lens is a very good one, giving excellent definition. The price is \$8.00.

JAMES D.—In the February number of PHOTO-ERA you will find a detailed description of the treatment of platinum prints. Yes, mercuric chloride is used for the purpose of obtaining sepia tones on the black and white paper. If the print is well washed after treatment by this method the tones are permanent and some very pleasing tones are obtained.

BERTHA B.—A good amidol formula for developing bromide prints is made of twenty-five grains of amidol; three hundred grains of sodium sulphite; five grains of bromide of potassium, and ten ounces of water. This developer should be used soon after mixing.

G. L. P.—The dull appearance of your bromide print after drying may be remedied by applying a coat of artists' fixatif. This will not injure the print, but will give the bright appearance which the print has while it is wet. See the advertisements of the Mitineague Paper Co., and also the Seymour Co., in PHOTO-ERA, for artistic photographic mounts.

L. C. F.—Toning with copper sulphate will give a warm red tone to your bromide prints. A good formula is made as follows: water, ten ounces; citrate of potassium, one ounce; copper sulphate, fifty-five grains; ferricyanide of potassium, 545 grains. The toning proceeds from black to warm chocolate, then to warm red, and then to deeper red. It takes about six minutes for the print to reach the desired red tint.

R. D. L.—I cannot give a formula for producing permanent sepia tones direct by developing. The print has first to be printed and developed in the regular developer; then submitted to the second bath, which gives a permanent sepia tone. This is very little trouble. The solution about which you ask is not always certain in its results.

FRED. BRUNDAGE.—Enlargements may be made on Royal bromide and toned to a sepia. This paper gives very fine prints and is very easy to manipulate. You can enlarge prints from your small negatives and use your lens and camera. An article on how this is done may be found in the February number of PHOTO-ERA.

S. B. MASON.—The prints which you send in for criticism are all from negatives which are very much over-exposed. Space cannot, therefore, be devoted to a detailed criticism. Please send in prints which are correct, or nearly so, in exposure and the editor will criticize them.

B. N. H.—There is no limit to the number of prints which you are entitled to send to the competitions of the Guild. It is wiser, however, to send one good print then half a dozen of indifferent interest. All prints are judged very carefully, and in making the awards all points are given careful consideration and the pictures marked accordingly.

CHARLES HALDEN.—Use orthochromatic plates for copying paintings, also for flower-studies. In copying pictures which are framed under glass, either remove the glass or place the picture at such an angle that there is no reflection from the glass. You can copy the picture with your small camera and then make an enlargement from the negative. See answer to Fred. Brundage in this column.

F. D. T.—To obtain an engraving black on bromide prints use an amidol developer. This is made of three hundred grains of sulphite of soda; five grains of bromide of potassium; five grains of citric acid; thirty grains of amidol; and ten ounces of water. Stir the mixture well to avoid spots on the prints. A better way, and a wise precaution, is to filter the solution after mixing. Amidol does not keep well in solution, so the developer must be mixed fresh when needed. The image appears very quickly, but the print should be left in the developer long enough to gain density. The color is a very deep black and brilliant in appearance—a brilliancy which can be enhanced by coating the print over with artists' fixatif after it is dry.

F. G. EASTERDAY.—The pencil for writing on the glass side of negatives in order to title them is Faber's blue glass and china pencil. This pencil costs ten or twelve cents and may be had at almost any stationer's. One way to title a print is to write on the sensitive paper with ink before putting in the printing-frame. The ink will wash off in the toning-solution and leave the title in white on the print.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"THE AQUEDUCT," J. E. F.—This picture has excellent technique; the lights and shadows are soft and harmonious, and as showing the construction of an aqueduct it is all such a picture should be. It has, however, two distinct points of interest. The first is the stream flowing under the arch of the flume, or raceway, which carries the water to the falls; and the second are the falls themselves, tumbling and foaming over the rocks. The picture is divided in the middle by the dark rocks and bank which support one end of the arch of the aqueduct. This print might be cut in two a little to the left of the center and one would have two distinct pictures, each with interesting features. The strong high-lights on the water flowing under the bridge and on the falls give the two points.

"INDIAN SUMMER," E. K. H.—A glimpse of a small lake, a range of hills in the distance, in the middle-distance what appears like an up-turned boat, and in the foreground a strip of the lake-shore with reeds furnish the material in this composition. The shore is rocky, and at the extreme right a figure is seated on a rock. This is the one false note in what would be an admirable autumn landscape. The figure, however, is so placed that the lower part of the body is quite hidden by the rocks and gives one a feeling that the subject is really lacking in lower limbs on account of the abruptness of the edge of the rocks. If this figure had been posed farther away from the camera, standing on the shore of the lake, for instance, the whole composition would have been harmonious. It so often happens that one sees the things after, rather than before, taking a picture that it behooves one to look well to the composition, and especially to the position of a figure introduced into a landscape.

"ON THE HILLSIDE," A. M. S.—This picture shows the slope of a hill, the line starting from the lower left-hand corner and running up to the right-hand corner within an inch or two of the top. The slope is very gradual and the whole entirely in shadow. At the right is a group of trees, while at the top of the slope a tree-trunk slightly inclined is visible. A little

to the right of the center, two-thirds of the way up the slope, are three figures outlined sharply against the sky. This print is low in tone, the lines simple and harmonious. The fault in the composition is the introduction of a bench at the lower left-hand corner between the group of trees and the margin of the picture. If the print is trimmed at the left enough to cut off this object the picture will be very much improved in artistic treatment. The far horizon shows lines of hills which help the composition and give depth and perspective.

"PORTRAIT-STUDY," S. L. H.—This picture shows the head and shoulders of a girl with her hair unbound and hanging loosely over the neck and shoulders and brought forward so as to partly veil the face. The study is evidently an attempt at impressionistic work, but not at all successful. There are strong high-lights on the nose, lips and chin, making a sharp line which cuts the face exactly in half, the rest being entirely in shadow. Were it not for this lighting the picture might pass muster as a study of half-tones, but is not interesting as a portrait or as a picture. The subject, however, is worth trying again, making a little sharper focus and subduing the lighting on the face. The picture is so much out of focus that the hair, instead of looking like hair, looks more like a woolly mass without form.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast Seed 23
Class 1	Eastman Extra Rapid	Class 4
AnSCO Film, N. C. and Vidil	Hammer Extra Fast	Stanley Commercial
Cramer Crown	Hammer Extra Fast Ortho	Class 5
Cramer Crown Non-Halation	Hammer Non-Halation	Cramer Commercial
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Defender Non-Halation Plain
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Ortho
Cramer Isonon	Seed C. Ortho	Defender Ortho Slow
Cramer Trichromatic	Seed L. Ortho	Hammer Slow
Defender King	Seed Non-Halation	Hammer Slow Ortho
Defender Ortho Inst.	Seed Non-Halation Ortho	Class 8
Eastman N. C. Film	Standard Extra	Cramer Slow Iso
Ensign Film	Standard Orthonon	Cramer Slow Iso Non-Halation
Hammer Special Extra Fast	Class 1 1/2	Class 12
Imperial Special Sensitive	Lumière Ortho A	Defender Queen
Imperial Orthochrome Special Sensitive	Lumière Ortho B	Seed Process
Kodoid	Lumière Panchro C	Class 100
Magnet	Class 2	Lumière Autochrome
Premo Film Pack	Cramer Medium Iso	Lumière Red Label Slow
Seed Gilt Edge 27	Cramer Medium Iso Non-Halation	
Standard Imperial Portrait		
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For July

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of July on any fine day between 10 A.M. and 2 P.M. when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8 is used. Treble it when the light is rather dull, and from 6 to 7 A.M. and 5 to 6 P.M. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. From 9 to 10 A.M. and 2 to 3 P.M. increase the exposure one-fourth. From 8 to 9 A.M. and 3 to 4 P.M. increase it one-half. From 7 to 8 A.M. and 4 to 5 P.M. increase it two and one-half times. From 5 to 6 A.M. and 6 to 7 P.M. increase it six times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
	1/1600	1/800	1/640	1/512	1/400	1/320	1/200	1/160	1/128	1/100	1/64	1/8
	1/800	1/400	1/320	1/256	1/200	1/160	1/100	1/80	1/64	1/50	1/32	1/4
	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
	1/4	1/2	3/5	3/4	1	1 1/5	2	2 2/5	3	4	6	48

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

Fixing P. O. P. Prints Before Toning

LAST November I called attention to the custom among some workers of fixing dry-plates before development. It is also possible to fix P. O. P. prints before toning, and R. Namias, writing in "Eder's Jahrbuch," states that it is theoretically an advisable course and one which may be practised with success and economy. Moreover, it is claimed that this procedure avoids most of the evils which are ascribed to the combined toning and fixing-bath. At the same time, it destroys the simplicity of its use under ordinary circumstances, although the writer states that the difference is more apparent than real.

A boric acid fixing-bath is the best to use, because the prints may be drained from it and transferred direct to the toning-bath without washing. It also has the advantage of being excellent for plates or bromide papers, and it may be used for P. O. P. prints after having been used previously for either of these, provided it is free from all color. The formula follows, and three to four minutes' immersion is sufficient:

Hypo..... 6 ounces
Boric acid 1 ounce
Water to 20 ounces

Toning after fixation proceeds rather slowly but with great regularity, and it is necessary to add only a small quantity of gold chloride solution occasionally to secure complete toning. So little silver is carried into the bath after fixation that it has no visible effect upon the action of the bath until several hundred prints have been toned, while in ordinary procedure with the combined bath its effect is noticeable after a few dozen have been toned, because the hypo is soon exhausted and the silver hyposulphite is not removed from the paper. For this reason the toning-bath keeps better, does not darken as when used in the ordinary way and it is not so quickly exhausted of its gold.

The resulting prints seem to be permanent and the method of treatment does not in any way prevent the production of black tones, which have made the combined bath so popular among amateurs, while it is far superior to the methods of separate toning and fixing, where the slightest trace of hypo in the toning-bath causes spots and stains. Separate toning and fixing are also expensive because the black tones must be obtained solely with gold. Thus fixing before toning in the combined bath has in its behalf the arguments of economy, permanence, good quality of prints and the possibility to stop toning at any desired stage.

Non-Inflammable Film

REFERENCE was made in this department last July to a film of this nature known as Cellit and invented by Dr. Eichengrün. The Farbenfabriken of Elberfeld Company now manufactures a similar product which is sold to large moving-picture concerns, and only a short time ago Messrs. Lumière entered the field. Their film is composed of specially hardened gelatine prepared in contact with a celluloid base from which it is afterwards stripped. The amount of celluloid which adheres to the film is negligible.

The new film requires a little extra manipulation and slightly longer time to dry, but the results are said to be technically all that could be desired. The cost of manufacture is fifty per cent higher than that of celluloid film. The expansion of the new film under heat will melt the celluloid base, but there is nothing its destruction prevention of the expansion that of ordinary film in its favor.

Posing and

FOR some time a few words at has been treated in the *graphic Annual*, that I cannot do

Long Face—quarter face.

face, almost pr above head, fr

Long Neck.—raise neck-wea

screen top of

Deep-set Eyes.—deflection from be

Ears.—Three-q

Old, Furrowed R

all around, ar

Broad front-lighting. *Arrow* *Chairs*.—FRONT

side-lighting. *Full-lengths and Groups*.—Broad

top-lighting, screened toward floor. *Babies*.—

Camera low, well-diffused lighting, mainly from

top front. *Hands*.—Edgewise to the camera or

nearly so, shaded with screen. *Textures*.—A crisp lighting, distinctly strong, and condensed from high at one side, but with enough general light to prevent any dense shadows.

Permanent Negatives

How best to produce negatives which without deterioration will withstand the ravages of varying atmospheric conditions, which are likely to cause chemical action if the film has not been properly treated, is ever an important subject, and one which is a constant source of queries at this office. The causes of this trouble are so many and so varied, states *The British Journal of Photography*, that it is often difficult to advise, but the procedure which is most likely to result in lasting negatives is easily stated, as below, and all who follow it strictly seldom have difficulties of this nature. First, fix completely; second, wash thoroughly, but not too long; third, harden with formalin, rinse and dry; fourth, drive all moisture from the film by heating; fifth, varnish.

Careful attention to the matter of fixing the negative is of the utmost importance, for it is not until after complete fixation that the unstable double salts of silver produced by development become soluble; and any amount of washing previous to that time would fail to remove them from the film. It must be remembered that temperature has a marked effect upon the time required for fixation; ten minutes may be long enough in summer when the bath is warm, but, in winter, when it is cold, an hour will not be more than sufficient. It is always wise to adopt the old rule which requires that the negative shall remain in the bath twice as long as it takes the white silver bromide to disappear. The following is an excellent formula:

Hypo solution (1:5)	50	ounces
To which add a mixture of		
Tartaric acid solution (1:2)	1½	“
Sodium sulphite solution (1:4)	3½	“

After complete fixation thorough washing is a comparatively simple matter. A good circulation of water at practically the temperature of the fixing-bath should be provided. Marked differences are likely to cause frilling and similar troubles. Many workers wash their negatives for ten minutes; others soak them all night. One is too short; the other, too long. One hour in running water is a good time to adopt. Over-washing tends to rot the gelatine and is as bad a trouble as hypo, for, under certain conditions, there is a tendency to mold, particularly if fixation has not been thorough.

To prevent mold and, principally, to harden the film it is advisable to immerse the negative before drying in a sterilizing-bath, such as formalin. An ounce of formalin to ten or twenty ounces of water is the right strength, the solution being necessarily made stronger in summer than winter. After this it should be rinsed and dried. Alum is often used as a hardening-agent, but, unless fresh, an alum bath contains molds which are conveyed to the film. It may, therefore, be better to avoid the use of alum for this purpose, both when used separately and in the fixing-bath.

The last operation in preparing a permanent negative is varnishing, a custom not so common in America as abroad, but one which should not be omitted in the case of valuable negatives. Of course, the object of the process is to prevent the

absorption of moisture by the gelatine film, but an apparently dry negative-film may still contain moisture enough to cause after-troubles. Application of varnish to such a negative surely keeps out moisture, but it also prevents that in the film ever from escaping. Thus it is that heating the negative before varnishing is always desirable to drive off all moisture, no matter whether the varnish itself requires it or not.

Celluloid varnish seems to give better protection than any other, and the following is a good formula:

Celluloid	½	ounce
Amyl acetate	25	ounces

This may be applied cold, but, as just stated, it is best to first warm the negatives before a fire to a point when it is just possible to handle them comfortably. Then take one of the negatives in a plate-lifter and pour upon it a large pool of varnish. Tilt the glass gently so that the varnish will run from one side to the other but not over the edges. Leave one corner bare. When all else is covered stand this corner into a funnel holding a filter-paper and allow the excess of varnish to drain over the uncovered portion. If there are several negatives to be treated it may be better to place them in a wall-rack made by driving nails into a strip of wood. On these nails the negatives may be rested with one corner downwards as in the funnel, the opposite upper corner resting against the wall for support. The drippings may be caught in a receptacle below and used again.

The best way to provide a perfect coating is to cut away, for about an eighth of an inch, the film all around the negative and then varnish to the edge of the glass. This prevents frilling and the creeping of moisture under the protective varnish.

Black Tones on Gaslight Paper

A DRAWBACK known to all who use gaslight paper is the fact that in developing several prints in the same solution the first three or four will be of a pure black tone but succeeding prints gradually deteriorate to a greenish or brownish black, becoming more unsatisfactory as the number is increased. To arrive at a better and more economical method of development, Dr. G. Hauberrisser undertook a series of experiments which he has described in "Eder's Jahrbuch." The results show that the addition of five drops of a ten per cent solution of tribasic sodium phosphate to each three and one-half ounces of developer permits the development of twenty-five prints without deterioration. Later, when the action of the developer begins to become slower, the quantity of phosphate solution may be added, to ten drops. Only pure phosphate salt should be used. The quantity here advised applies for edinol and metal-hydro developers; others may require different treatment.

Too Much Sulphuric Acid

WE regret that a typographical error crept into one of the new formulae for Autochrome plates published on page 309 of the June issue. The quantity of sulphuric acid in the reversing-solution should have been 3 drams.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

April 13, 1909

917,784. PRINTING-APPARATUS. GUY W. MERRILL, Lincoln, Me.

A device for printing a large number of small photographs, such as post-cards, from one negative. The sensitized cards piled in a tray are lifted one by one by pivoting a carrier on an arm, and are brought into contact with the negative through which light shines from back of the frame. The bottom of the carrier presents a gelatinous surface sufficiently adhesive to hold a card and carry it to the negative, but permitting its easy removal by the metal fingers which pass between the card and carrier, as the latter is turned away from the negative, and allow the card to drop down a hopper into a dark, temporary storage-drawer below. There is a shutter which closes automatically by spring-tension and may be opened for printing by pulling the rod attached to the pivoting-handle.

917,940. DEVELOPING-FRAME FOR PHOTOGRAPHIC FILMS. EDWARD B. HANSBURY, New York City.

The frame is made of piping, with a cross-bar adjustable for any length of film and held in place by pins. To this bar and the top of the frame are attached spring-clips for holding the ends of the film. A tank is provided for the developer, with vertical guides at its sides so that several of these frames may be inserted with sufficient space between them to prevent contact of the films.

918,347. PRINTING AND DEVELOPING PHOTOGRAPHS ON SILVER CHLORIDE PAPER. HERBERT J. MALLABAR, Liverpool, England. Assignor to Synoloids, Ltd., London, England.

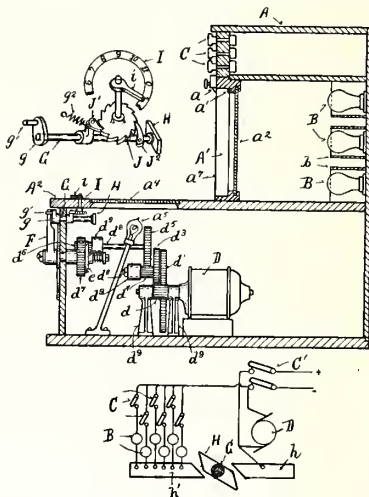
By this process the paper is printed to about one-third the usual depth and then developed instead of toned with gold. Cheapness, speed, brilliancy, increased detail and permanency are the claims. The developer consists of pyrogalllic acid, 4 grains; potassium bichromate, $\frac{1}{30}$ grain; potassium sulphocyanide, $\frac{1}{4}$ grain; citric acid, 1 grain; water, 5 ounces. About the same weight of metal instead of pyro gives a blacker tone, while one and one-half grains of metal and three grains of hydroquinone give a tone midway between the two. After development the print is fixed in hypo, two ounces to the pint of water, and washed as usual.

April 20, 1909

918,509. PHOTOGRAPHIC-PRINTING APPARATUS. WILLIAM B. CONAWAY and CARROLL L. SIEVENS, Aurora, Ind.

The cabinet A, being located in a dark-room having a subdued, or ruby-light, the switches C are adjusted to close the circuits of such lights B as may be required by the character of the particular negative to be treated. The sensitized paper is placed, with the negative, in the printing-frame while the printing-frame rests over the ruby-panel a^1 . The printing-frame is then secured in the opening A^1 . The operator then grasps lever F and moves it to the left, over the dial f , to the point on the dial indicating the desired

length of exposure to be given the print, causing disk e to slip on gear d^7 . As soon as lever F is moved, a spring rocks shaft G, causing switch-lever H to close the circuit through the lights B at the contacts h, h^1 . The movements of the motor D through gears d to d^7 and friction e slowly return



the lever F to the normal position, from which it was moved by the operator. When lever F contacts with pin g^1 , shaft G is rocked, thereby, in the opposite direction, breaking the circuit through the lights B, whereupon the printing-frame is detached, and a fresh sheet of sensitized paper may be introduced. When a sufficient number of prints from one negative have been obtained, the operator turns pointer i by hand to the zero position. Several windows A^1 and duplicate sets of mechanism to control the lights for each may be provided, these duplicate mechanisms being geared to and operated in common by motor D, while the slip of disks e permits both trains of gears to run with the motor.

918,884. MOVING-PICTURE MACHINE. HERBERT S. MILLS, Chicago, Ill.

A device for machines operated by an electric motor intended to stop the mechanism in case of accidental breaking of the film, or of its becoming caught. Two automatic switches contacting with the film and operating an ordinary electric circuit-breaker are the chief features. The weighted operating-finger of one switch bears upon a tight, straight section of the film; and if the latter should break one end of the finger would drop, closing a supplementary electric circuit which operates the circuit-breaker controlling the motor and stops it. The operating-finger of the other switch projects into but does not touch a loop of the film, and if the latter ceases to feed properly the loop draws tight and operates the switch and circuit-breaker much as before.

April 27, 1909

919,324. DISSOLVING-SHUTTER FOR KINETOSCOPES. JOHN H. CROSER, Philadelphia, Penn.

Between the film and the projection-lens is rotated a shutter consisting of a sector-shaped, semi-transparent mica body attached to a central metal strip and having its edges and the front and back of the body adjacent to this made opaque. If the shutter is revolved at a speed two or more times greater than the moving-picture film is being passed in the path of the lens of a kinoscope the reproduction upon the screen will appear without flickering, the backgrounds seeming to be fixed and only the figures or other objects to be moving.

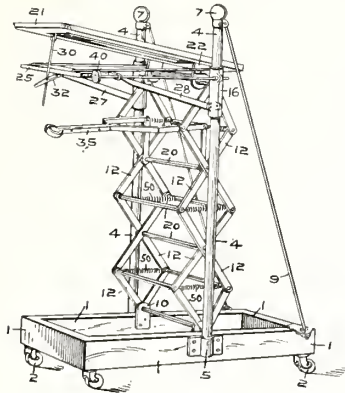
919,773. FILM-REELING MECHANISM. ALVAH C. ROEBUCK, Chicago, Ill.

In the kinoscope described the operating-shaft to which the hand-crank is attached has a slight endwise adjustment with a set-screw to hold it in either of the two positions. In one position the exhibition mechanism is in operation, while in the other it becomes inactive and the rewinding mechanism operative. One crank serves for both, and it is not necessary to remove the magazines in order to rewind the film. The film-rolls are rotated by means of bevel gears and counter-shafts in about the same manner as a chainless bicycle.

May 4, 1909

920,135. PHOTOGRAPHER'S CAMERA-STAND. JOEL E. HARROD, Indianapolis, Ind.

The stand consists of a base on casters, and uprights serving as guides for the expansible toggle-columns 12, which carry the camera supporting-frame 21. The latter may be held at any inclination by the rod 30. By means of



the handle 35 the toggle columns may be raised or lowered to adjust the height of the camera. This is made easy by the coil-springs 50, which are of such a number and tension that their combined strength will counterbalance the weight of the camera at the normal height for use.

920,135. PHOTOGRAPHIC PRINTING-DEVICE. CHARLES J. HILLMAN, London, England.

This device is intended as a substitute for a printing-frame in printing from film, paper negatives and in duplicating plans. It consists of two flexible sheets, one of trans-

parent celluloid and the other of millboard or other suitable substance, both fastened to end-strips. Between these flexible sheets are placed the negative and sensitive paper,



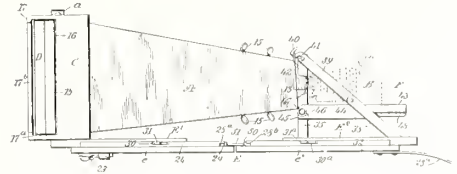
which are brought into contact by bending the sheets as shown and holding them by one or more straps.

920,263. FILM DEVELOPING-MACHINE. RALPH L. BURTON, Ortonville, Minn.

An apparatus for developing several strips of roll-film of any length in the dark-room with economy of solution. It consists of a cylindrical tank, the lower half holding the developer and the upper being removable as a cover. Within the outer casing a cylindrical drum, composed of circular slats between its heads, is revolved by a crank. Around this drum are fastened the strips of film, the ends of which are held to the nearest slats by spring wedges of metal which fit in between the slats and engage the ends of the film.

920,516. ENLARGING-ATTACHMENT FOR CAMERAS. CHARLES F. ADLON, Las Vegas, N. M.

An apparatus for daylight enlarging which may be quickly attached to an ordinary folding-camera or closed into very neat, compact form for transportation. The box C, which holds the whole outfit when closed, contains the paper-



carrier, the size of which represents the largest print obtainable. The base members, e and e', which close the box when folded, are fastened together by a coupling-pin and fastened to the box itself by set-screws. The folding table 44 supports the camera, the lens of which fits tightly into the end of the bellows A, held by the hook 40.

920,582. PHOTOGRAPHIC PAPER PRINTING-MACHINE. ERNEST N. KERR, Rock Island, Ill.

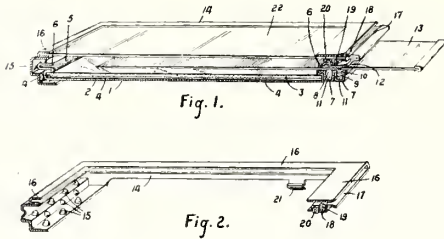
A machine for commercial printing of gaslight paper, so designed that the exposure-time may be varied at will by the operator. Its chief feature is an automatic shutter which closes at the end of the predetermined time. A wide range of speeds is obtainable.

920,648. PHOTOGRAPHIC PRESSURE PRINTING-FRAME. JAMES and HAROLD PRITCHARD, London, England.

A pneumatic printing-frame in which equal distribution of pressure is obtained by exhausting air. A rubber gasket around the inner edges of the frame permits the space between the glass front and movable back to form an air tight chamber. The movable back is provided with a valve where a pump may be attached and through which the air may be exhausted and kept out.

920,835. MEANS FOR DEVELOPING PHOTOGRAPHIC PLATES. RALPH E. DE LURY, Ottawa, Canada.

The invention consists of a plate-holder of metal or other suitable material, not affected by chemicals, in which dry-plates may be exposed in a camera and then developed in daylight by the admission of fluids. 5 is the regular plate-holder with its opaque slide 13. After exposure this is placed within the outer frame 14, having a transparent



slide 22, non-actinic in color, through which development may be watched. The slide 13 is then removed and both frames immersed in the developer, which enters through the indented perforations 15. Fig. 1 shows both parts clamped together; Fig. 2, a sectional perspective of the outer frame only.

May 11, 1909

920,901. ROLL FILM HOLDER. LOUIS S. BANDER, South Tacoma, Wash.

By means of this holder the films may be removed from the camera for focusing. The sectional drawing shows the device to be a removable frame which clamps to the camera by means of the catches 9, and is much like the Kodak



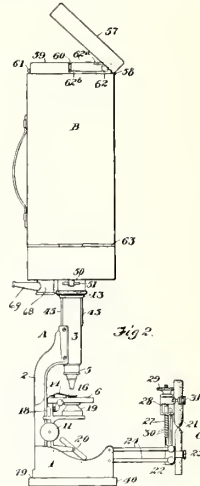
dry-plate adapter, except that it carries a film-spool at each end within a light-proof casing. Access to these casings is had by revolving the curved slide 5. A light-tight slide f must be removed during exposure, but when replaced protects the film, while the whole holder is removed with the film enclosed if it is desired to focus on a ground-glass.

921,273. FIRE-PROOF MAGAZINE FOR PICTURE-FILM. THADDEUS A. NOLAN, Cincinnati, O.

This comprises a square metal case with a hinged cover enclosing a film-reel journaled therein, the case being provided with metal rollers between which the film passes and which close the opening in the case. Around the circular film-reel is a wire-gauge partition forming a separate compartment of the corners and sides of the square case outside the circle. This space is filled with sponges or other absorbent material dampened with water, so that the film is maintained in a moist condition, thus rendering it more pliable, tougher and less liable to take fire.

921,317. PHOTOMICROGRAPHIC APPARATUS. ROBERT L. WATKINS and ROBERT HEAD, New York City.

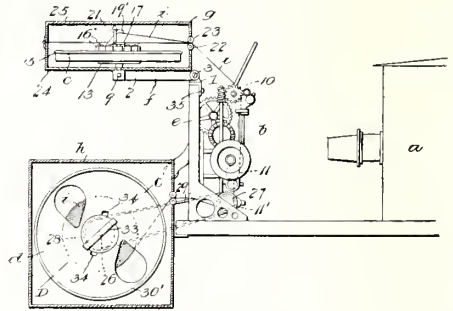
A compact outfit for making photographs of microscopic objects, so constructed that the entire apparatus,



including microscope, camera, arc-lamp and accessories, is combined in one connected piece, yet folds and telescopes within the camera-box, which then acts as a small, compact carrying-case for the whole outfit.

921,537. CONTINUOUS-FILM KINETOSCOPE. CHARLES B. GILLESPIE, Ridgeville Corners, O.

The patent relates to the feed and take-off reels, which are so arranged that the film is fed from the inner convolu-



tion of the film-roll and restored to the feed-reel without rewinding. The cut shows the feed-mechanism b, of any approved type, and the magazines g and h, alike except for the difference of position. The feed-reel c has the appearance of a large pan where the coil of film lies, the inner end of it passing around the spindles 16, through the delivery-rolls 19 and so on, past the light-beam from the lantern a. The take-up reel d is operated by a belt from the feed-mechanism, as shown. When the whole film has been transferred to this reel it may be taken off by removing one side of the reel, which is made detachable, thus allowing it easily to be replaced on the feed-reel.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions
are solicited for publication

In the Interests of Simplicity

IN crediting photographs to their respective makers in PHOTO-ERA the former publishers adopted the custom of stating first the maker's name and then the title of the picture. As this is contrary to common usage, it becomes confusing in the case of portraits involving two names. For this reason we shall, beginning with the present issue, reverse the order.

Beautiful Marine Views

THOSE of our many readers who are familiar with the exquisite pictorial interpretations of the sea by William Norrie, of Fraserburgh, Scotland, will be pleased to know that his enthusiasm and industry in this respect have suffered no abatement. We have just received from him a collection of new and delightful additions to his large collection of incomparable marine views. Workers will do well to emulate the example of this admirable Scotch pictorialist.

The Dresden Exposition

THIS long-heralded enterprise — without exception the greatest of its kind ever undertaken in the history of photography — is the subject of general congratulation on the part of the projectors and participants, alike. The immense exhibition-palace and its several annexes reveal the results of a thorough organizing-genius and a delightful sense of proportion, harmony and taste. The numerous spacious halls are admirably suited to the purposes of artistic display, and demonstrate consummate skill in the arrangement of the industrial and pictorial exhibits. Unlike similar undertakings, there are no evidences of hasty preparation, every salon having the appearance of absolute completion, with æsthetic touches, here and there, to emphasize this impression. German industries predominate, for every native manufacturer of consequence is represented and the exhibits of many of them are elaborate and expensive in character. The sections devoted to the scientific applications of photography are very comprehensive and impressive. Among the exhibits of professional portraiture the Americans appear to splendid advantage both in number and quality. Amateur photography, of course, makes a great display, and a review of the comparative merits of the different contributions from various countries and organizations will appear in our next issue. It is, also, too early to speak of the extent of the attendance, although the large native population has manifested a hearty interest in the exposition, for Dresden is the largest photographic manufacturing-center in Germany.

The National Convention

THE professional photographers' Mecca, this year, is Rochester, N. Y., and the time is July 19 to 24, inclusive. That the event will be one of unusual extent and brilliancy is stated, editorially, in this issue. Rochester is an exceptionally suitable place for the convention. It falls short of nothing, not even the weather, for the summer-heat of the great cities is unknown here. Although the affair will be educational in character, it will be relieved by high-class diversions, including a banquet. The manufacturers, ever generous to the interests of the Association, will be unsparing in their efforts to instruct and amuse the visitors, and the Buffalo section of the P. P. S. of N. Y. will do its share in no uncertain fashion. The industrial exhibits and art-displays will eclipse all that have gone before. The School of Photography, the artistic sensation of the Detroit Convention (last year), will again be conducted by distinguished artists. The sum of \$100.00 will be awarded for the best invention, process or appliance in photography. Everything has been skillfully planned by as able and faithful an Executive Board as ever managed a convention, and will run as smoothly as a well-oiled machine.

The hotel-accommodations are unsurpassed, and the prices quite reasonable. Hotel Seneca will be the headquarters of the convention, and in its large hall the business-sessions will be held. Hotel Eggleston, for men only, is also one of the best hotels in the city.

A special feature of the convention will be a Congress of Photographers, composed of delegates from the principal State associations, including those of New York, Pennsylvania, Ohio, Illinois, Michigan, Iowa, New England and Canada, to formulate a plan to amalgamate the interests of these large and important bodies with those of the National Association. This matter deserves careful consideration.

As a sign of the wide-spread interest manifested in the Rochester Convention, excursions — in vestibule-trains and based on the rate of one and three fifths fares — will be run from New York, Philadelphia, Pittsburg, Chicago, St. Louis, Boston, St. Paul, Minneapolis, Columbus, etc.

The art-exhibition, which will be arranged by Mr. A. T. Proctor, Huntington, W. Va. (to whom all inquiries should be addressed), will surpass in extent and character any collection ever featured at a state or national convention, as may be seen by the following partial list of contributors, which includes the names of the principal women photographers of the country:

E. B. Core
 S. L. Stein
 W. L. Koehne
 Joe Knaff
 F. S. Clark
 Charles W. Hearn
 Dudley Hoyt
 Elias Goldensky
 Baker Art Gallery
 John Nicholson
 Will H. Towles
 A. T. Proctor
 W. H. Partridge
 W. S. Lively
 Geo. G. Holloway
 D. Rosser
 J. Geo. Nussbaumer
 Oscar Pach
 William Shewell Ellis
 J. Ed. Rösch
 Herman Anschutz
 Harris & Ewing
 William H. Rau
 C. C. Pike
 W. E. Perry
 C. Pierre Havens
 W. Neal Waldon
 Ben. Strauss
 Benjamin Studio
 Homeier & Clark
 E. E. Seavy
 J. C. Strauss
 R. W. Johnson
 Jos. Thibault
 A. C. Townsend
 John Sabine
 J. H. Kemp
 Smith-Curry Studio
 Meredith Janvier
 C. E. Kough
 J. W. Hawes
 Cole-Müller Studio
 Carl Moon
 Wharton & Tyree
 Geo. Van Norman

Ryland W. Phillips
 C. M. Hayes
 Pirie MacDonald
 S. H. Lishey
 J. H. Garo
 Will Armstrong
 E. E. Doty
 J. E. Mock
 H. E. Voiland
 J. H. Field
 Chas. Townsend
 T. Kajiwara
 Geo. Steckel
 Alfred Holden
 Thuss Brothers
 Izaak De Vos
 Charles I. Rosevear
 D. D. Spellman
 F. W. Medlar
 H. A. Baird
 Geo. E. Tingley
 H. Hoffman
 J. B. Schriever
 C. J. Van Deventer
 D. P. Thompson
 G. J. Parrot
 Howard D. Beach
 J. H. C. Eyanoff
 Milton Loryea
 Ben. Larrimer
 F. J. Feldman
 A. F. Bradley
 J. Will Kellmer
 Young & Carl
 A. M. Camp
 O. C. Henry
 W. O. Breckon
 N. Brock & Co.
 E. W. Brown
 J. E. Giffen
 Walter Holiday
 J. F. Rentschler
 Harry A. Bliss
 F. R. Barrows

WOMEN EXHIBITORS

Mary Carnell
 Blanche E. Reineke
 Frances B. Johnston
 Nellie J. Hall
 Belle Johnson
 M. Estelle Jenkins
 Katherine Jamison
 Margaret Van Fleet
 Jeanne Bertrand
 Ella Saunders
 Emma Estelle Francis
 Edith A. Ritzenour
 M. M. Morton
 Gertrude Käsebier
 Mrs. Walter Griffin
 Elizabeth Holden
 Bessie Meiser
 E. C. Standiford
 C. A. Donaldson
 Helen W. Clogston
 Rita B. Morris
 Julia H. Elton
 Ella G. Ball
 Miss M. Agnes Small
 Mary E. McGarvey
 Jessie Corbett Beals

If any worker — professional, semi-professional or amateur — desires to contribute pictures of recognized artistic merit to this important exhibition, he should communicate at once with Mr. Proctor, who will reserve space and include his name in the list of the official catalog.

The Professional Photographers' Society of Ohio will send a separate and comprehensive exhibit, among its members being the foremost photographers of the State. A similar action will be taken by the Canadian Photographers' Association. This progressive step on the part of these two societies is very gratifying to the National Committee, just at this time, as it is in line with new departures to be discussed at the Congress of Photographers. It demonstrates the value of State organizations in assisting and promoting the interests of the national body; and it is hoped that this example of organized support, together with other ideas to be discussed at Rochester, may be followed by other State

bodies; for it will, in a very great measure, tend to facilitate the work of the executive boards, besides materially lessening the anxiety of the National Executive Committee as regards attendance, exhibits, etc.

Close observation at performances of recent musical comedy successes suggests points for comparison between chorus girls and poor photographic plates — both are often much over-exposed and under-developed.

P. A. of N. E.

PLANS for the convention of the Photographers' Association of New England, to be held in Mechanics' Building, August 3, 4, and 5, are practically completed.

Realizing, as all well-informed professional photographers must — in view of the aggressive policies of other associations and the propositions anticipated in the P. A. of A. — that the year 1909 is destined to be the most important in the history of modern professional photography, the New England Executive Board has not only given profound study to the present-day situation, but it has called in consultation many of the master workers and association veterans.

While none of the features that have proved so enjoyable and beneficial in the conventions of the past are to be excluded, several radically new departures will be introduced, vitally instructive and basic in the line of progress. It will be so arranged that no member can attend without becoming an *active* factor in the success of the convention; no member can attend without receiving and dispensing his desired share of fraternal and educational benefits, with all details becoming a matter of record.

The '09 convention is designed to cover the field from the ground up, particular attention being accorded the *ground*. The "*feature*" will be the "*Negative School*", members are invited to bring finished portraits and the *negatives* from which they were printed. Individual criticism and instruction will be given by several of the most noted workmen in the association.

Mr. Allon Bement, art-instructor at Columbia University, and "Daddy" Lively, of the Southern School of Photography, both too well-known to need introduction, will be present all three days. Full particulars will soon be placed in the hands of all professional photographers within the province of this association, and, upon application to George H. Hastings, secretary, Haverhill, Mass., will be forwarded to others interested.

Sometimes smartness means cheating. Reliability always means honesty. PHOTO-ERA may not be smart, but it always is reliable. And this applies to its advertisements as well as to its text.

Indiana Association of Photographers

JULY 5, 6, 7, 8 and 9 are the dates of the Indiana Convention, to be held at the Daguerre Memorial Institute, Winona Lake, Ind. It promises to be a brilliant affair, and furnishes, at the same time, a delightful trip, for Winona Lake is considered the most beautiful resort of the Middle West, and the Daguerre Memorial Institute has the interest of being the only real memorial to the founder of photography. The officers are planning some delightful features and, best of all, a hearty welcome to all comers. The Dimond Medal Trophy, the most elaborate and expensive of any association award, is open to out-of-State photographers. Write to E. K. Shalley, Berne, Ind., for particulars.

The N. P. A. Offers a Loving-Cup

THE officers of the Northwestern Photographers' Association send greeting to all photographers throughout the United States and Canada. They offer a beautiful loving-cup for the best exhibit of photographs at their convention at St. Paul, Minn., Aug. 26, 27 and 28, 1909, for non-Association members. Photographs to be on any paper, framed or not, with or without glass. Two to four pictures in number, nine inches or larger one way. They must arrive not later than August 24. Address to B. C. Golling, Ryan Building, St. Paul, Minn. The exhibitor to pay charges both ways, unless the exhibit is chosen. In such case the Association reserves the right to retain same permanently. Any further information will be freely given on request by C. H. Galbraith, secretary, 1231 Washington Ave., No., Minneapolis, Minn.

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Easy money is hard to make, but those few who do make it are nearly always broke.

The Genius of the Studio

A BOSTON photographer has recently fitted up his studio and reception-room in Oriental style, a unique Japanese portière, with its long beaded strands, being a particularly beautiful feature. One gloomy day he was gladdened by the unexpected arrival of his favorite little five-year-old niece, who was left in his care by her mamma while she did several errands. His fondness for the child was very marked; for, in amusing her, he quite forgot the work he had planned to do that morning. Suddenly remembering, he tore himself away from the small siren, telling her, at the same time, that he loved her very much. Poking her curly head through the Japanese portière she called after him, in her own rough way, "I don't believe you do, uncle!" He had been in the dark-room for only a short time, and was engrossed in the development of a plate, when he heard the voice of the tiny maid, soliloquizing in regular, measured cadences, the words accompanied by a rattling sound as of objects falling on the hardwood floor. As this continued

for some little time, his curiosity was aroused; he listened and finally became alarmed. He hastily covered the developing-tray, and hurried out of the dark-room towards the scene of disturbance. To his great amazement he saw his small niece standing with her back towards him, saying, "He loves me, he loves me not," and then, with a joyous, triumphant cry, she pulled down the last remaining strand of his precious portière with a jubilant "HE LOVES ME!"

New York Camera Club

THE season, one of the most active and gratifying in the club's history, was brought to a happy close in the form of a smoker-entertainment, Saturday evening, May 15. An elaborate program had been prepared by the committee, Mr. H. T. Rowley and Mr. F. S. Hastings. The principal musical feature was the singing of the Amateur Glee Club of New York, interspersed with vocal solos by Mr. Arthur Phillips, the conductor, and pianoforte selections by Mr. Walter Leon. The evening was further enlivened by stunts of a varied and pleasing nature by members of the club, and the entire affair was voted by all present an immense success.

Buffalo Camera Club

THE Buffalo Camera Club held its Seventh Annual Exhibition in May, celebrating its removal to its new quarters with one of the best exhibits yet given. Not only were the subjects very artistically treated, but the methods of printing and framing were selected with special reference to the subject in question. Ozobrome seems to be one of the favorite mediums, and the pictures finished in this process showed that the workers were masters of this effective printing-medium. If space permitted, one would like to speak in detail of the work of the different members, showing, as it did, the individuality of the workers. Prizes were awarded in twelve different classes, the first prize in landscapes being equally divided between four members, and the first prize in portraits being divided between three members—a fact which speaks for itself as to the excellent merit of the exhibit. The exhibition-cup was won by Mr. C. A. George.

Grand Rapids Camera Club

THIS flourishing club held its Eleventh Annual Exhibition recently at the Ryerson Public Library, Grand Rapids, and received much general commendation for the excellent pictorial work shown. Charles Vandervelde, Eleanor W. Willard, Fedora E. D. Brown, Dr. and Mrs. Rawson, naturally, took first honors; but the prints shown by Edgar S. Gage, J. L. Benjamin, George D. Kingwell, Georgietta Kennedy, Helen M. Vilas and Mrs. J. P. Seymour displayed much talent.

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When an injury has been forgiven don't bother to forget it; just forget to remember it.

Oregon Camera Club

ONE of the most important and progressive photographic bodies on the Pacific coast is the Oregon Camera Club, which held its Fourteenth Annual Print Exhibit from March 22 to 27. Not long ago the club-rooms were moved to new and more commodious quarters, where every facility for advanced photographic work is provided, and the hundred or more members are glad to be of assistance to camerists not so well versed in the art as themselves. Every camerist in the vicinity of Portland should join if possible.

Along the lines of art this club has grown considerably of late, being represented in prominent exhibitions in Great Britain, Dresden and in the American Salon. The present exhibition is of a high order of excellence and prizes were awarded as follows:

Portraits.— First, J. A. Haran; second, Henry Berger, Jr.

Marines.— First, W. B. Struble; second, Mrs. J. J. Fitzgerald.

Landscapes.— First, I. N. Lipman; second, J. A. Haran.

Animals.— First, W. D. Smith; second, Albert G. Myers.

Still Life.— First, C. Ford Richardson.

Genre.— First, H. J. Thorne; second, W. D. Smith.

Flowers.— First, H. J. Thorne.

The Judd Cup for the best exhibit went to J. A. Haran, but must be won three times in succession to become permanent property.



If photographers were as particularly neat and clean about the studios as in the home parlors more success would follow.



Toronto Camera Club

THE Sixth Salon and Eighteenth Annual Exhibition of this club was held March 22 to 27. The exhibit was the best in the history of the club, the jury of selection accepting only eighty-two prints out of a total of two hundred and fifteen submitted, so that the standard would be high. Favorable commendation was received from both the press and the general public.

A new departure was made this year, the club having sent seventy-nine prints to the M. A. A. A. Camera Club at Montreal, sixty of which were hung there. Three members received certificates: Mr. J. H. Ames securing three and Mr. W. H. Moss and D. A. Coulson one each. The exhibit was sent from Montreal to the Peterborough Camera Club, together with other prints sent from Toronto, making a total of one hundred and twenty.

It is proposed that next year the Toronto, Montreal and Peterborough Clubs should hold their exhibitions concurrently, so that each club will have the advantage of the other two clubs' exhibits.

A Club for Boston Men

THE First Annual Meeting of the Boston Young Men's Christian Union Camera Club was held on Tuesday evening, May 4, in its newly equipped quarters. The following officers were elected for the term of one year: Stephen E. Woodbury, president; Henry C. Shaw, vice-president; Wilfred S. White, secretary and treasurer.

Much interest is being manifested in this growing, thoroughly up-to-date camera club, and its membership is steadily increasing. Numerous outings for the summer months have been planned by the Outing Committee, and the Entertainment Committee propose to give the members and their friends a treat the latter part of this month in Union Hall. The club numbers among its members many prominent and leading men in the photographic line in this city and vicinity, and offers to those interested in photography excellent facilities for becoming expert in the art. All applications for membership should be addressed to the secretary, Wilfred S. White, 48 Boylston St., Boston.

Portland Camera Club

THE collection of prints by members of the Portland (Me.) Camera Club, which belongs to the Print Interchange, after having been shown at the camera clubs of Buffalo, Chicago, Akron, Washington, Baltimore, Philadelphia and Orange, terminated its travels at the Boston Camera Club, where it was seen for three weeks, beginning May 20. This series of prints is one of several collections which the Portland Club is circulating throughout the country, but it does not happen to be the best. It is easy, thus, to account for the lack of uniformly high artistic quality in this case. Fortunately, the reputation of the club does not depend upon the merits of this collection, though one would wish that it had been better. The club has won enviable fame in the depiction of landscapes, street-scenes and marines, of which good examples were shown by F. H. Thompson, C. F. Berry, George E. Fogg, W. J. Hoyt, H. A. Peabody, F. W. Shaw, S. S. Skolfield and others. In portraiture the club did not appear to be strong, save for one excellent head by C. F. Clarke, a prominent member of both the Portland and Boston clubs. Added interest was afforded by the album of criticisms to which each club on the circuit had contributed, evincing painstaking and intelligent effort mingled with suggestions eminently succinct, frank and to the point.

The following officers were elected at the annual meeting recently: president, H. A. Roberts; vice-president, George E. Fogg; secretary and treasurer, O. P. T. Wish; lantern-slide director, H. A. Peabody. Executive Committee, F. H. Thompson, O. P. T. Wish, C. F. Berry, H. W. Shaw, H. A. Peabody, Ernest Gerhardt, B. W. Guppy, A. P. Howard, E. E. Cheney. Membership Committee, S. S. Skolfield, R. B. Hunt, J. F. Gould.

A Unique Organization

THE Correspondence Camera Club is probably the most unique body of camera-workers in the world, being represented by members in almost every civilized country on the globe. The purpose of the club is to give members an opportunity to exchange prints and ideas and to encourage and assist its members to a better enjoyment of photography by supplying that stimulus which association and example always provide. It also furnishes an opportunity for members to make a collection of pictures pertaining to some certain class, or kind, such as artistic, comic, historical, typical, genre, portraits, etc., etc.

Among some of the features connected with the club may be mentioned the following: Camera and Lens Exchange; Photo-Supply Service; Expert Advice; Information Bureau; Negative and Print Sales-Bureau; Magazine Review Service and Buying-Service. Other useful features will be added from time to time which will make this one of the most popular clubs in existence. The personnel is kept at a high standard, and all applicants must be able to submit specimens of good work before being admitted to membership. The headquarters of the club have been removed from New York to Helmetta, N. J., for the summer. Mr. P. Mitchell is secretary.

Old Cambridge Photographic Club

THE exhibition held by this society at Miss Kelly's school, in Cambridge, Mass., in April, was of exceptionally high artistic merit. One hundred and forty prints were shown, by Grace C. Cheney, Eleanor W. Davis, Lois L. Howe, Maria Hallowell, J. P. Loud, George F. Moore, Caroline E. Peabody, Charles Peabody, Jeanette B. Peabody, Charles R. Sanger, Philip P. Sharples, Annie G. Schufeldt, J. G. Thorp, W. O. Underwood, M. S. McN. Watts and Jennie R. Woodbury.

A Plea for the Hyphen

A FRIEND of the editor, who is engaged in the business of moving pianos, furniture, pictures, bric-à-brac, etc., was called to the telephone, recently, and the following dialogue took place:

"How much do you charge for moving pictures?"

"That depends upon the size of the load and the distance. If within the limits of the city, I should say from \$10.00 to \$15.00."

"I am not talking about moving pictures, but moving-pictures. I do not want them by the load, either, but simply one reel at a time."

"Ring off!"

If we don't give you the chance to read and subscribe to PHOTO-ERA the fault is ours. If we give you this opportunity and you don't take it the fault is yours — likewise the loss.

A Photographic Finish

A CORRESPONDENT asks if by "amateur finishing" he is to understand that a firm which uses this term to designate the nature of its business wants to bring about his "finish." We beg to assure our subscriber that such is not the intent of this party, as, upon inquiry, we find that he merely wishes to finish work begun by him. After having developed the film or plate the photo-finisher — such he really is — desires the privilege to continue the work by supplying the prints. A commendable wish, to be sure.

The Story of the Reversible Back

THE annual field-day of the Agfa Camera Club occurred last month, amid ideal conditions. The weather had been auspicious, and each member bagged his share of the plethora of beautiful pictorial views. Only once was the serenity of the occasion threatened, and that was on the homeward journey. The party had boarded the train, selecting a car that was practically empty, and, even after every one was seated, there was room to spare. Two of the party, desiring to sit together, selected the second seat and, as the back to the first seat opposite was not turned over, this afforded an excellent opportunity to deposit and arrange their photographic outfits. At the next station a large number of people boarded the car, and in a few minutes it was well filled. Two individuals of ominous mien approached the seat facing our two friends, and at once ordered the effects to be removed. The rude manner in which the request was made did not inspire immediate acquiescence, and there was a moment of hesitation on the part of the two camerists. "Just like you snap-shotters to monopolize all the room! Remove those traps at once, if you don't want them thrown out of the window!" With this insolent remark the speaker made a motion as if to carry out his threat, whereupon one of the camerists quickly placed a protecting hand upon his property and replied that the request should be complied with, at the same time looking about for a place to stow the cumbersome equipment. The waiting man grew impatient and, turning to the conductor, who had just entered to collect tickets, angrily demanded if two passengers had the right to occupy seats for four, and insisted that the seats be at once cleared and the back turned over. The conductor looked at the seat in question and smilingly asked if any assistance were needed, whereupon the furious passenger, a man of athletic build, laid violent hold upon the back of the seat, gave a tremendous pull — only to discover, to his intense chagrin, that it was not reversible as he had thought! The discomfited man, after one hasty look at the many smiling faces all about, took hasty departure, and disappeared into the next car, where there was plenty of room. Moral: remember that the back of the end-seat in the day-coaches on many railroads is rigid and firmly built into the floor.

Auction Sales

THE idea of camera clubs selling at auction photographic material consigned by members has the element of novelty, and has proved successful. While it saves the time and money of members, the photographic journals lose just so much valuable advertising. The Camera Club of New York held such a sale at its rooms, April 15, last, and considerable material, including cameras and accessories, was sold, bringing good prices. A similar event occurred at the Chicago Camera Club, March 25. The material, however, was consigned by local dealers—members of the club. The value of the supplies thus disposed of amounted to \$1,500, and a certain percentage of the receipts went to the club.

A Plea

PHOTO-ERA is constantly receiving pleasant messages from its numerous admirers, and the following is a unique form of a renewal of a subscription:

Please come another year to me,
O magazine so good.

I could not spare thee if I would,
And would not if I could!

EDMUND H. ROYCE.

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: GEORGE W. STEVENS, Toledo Museum of Art, Toledo, O.

Vice-President: JOHN F. JONES, 934 Ash St., Toledo, O.

Secretary: C. C. TAYLOR, 3236 Cambridge Ave., Toledo, O.

Treasurer: GEORGE W. BEATTY, 1626 Nicholas Bldg., Toledo, O.

Historian: WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

ONCE more we want to ask the coöperation of every reader of PHOTO-ERA in making the next Federation Salon the greatest in the history of the organization. We want every worker who reads this to feel that he is closely identified with the movement and that his personal assistance is desired by the officers. Let every reader of PHOTO-ERA make up his mind to exhibit at least one print at the Salon, and keep that idea constantly before him. The vacation-time furnishes an excellent opportunity for artistic picture-making, whether it be on a trip to the Dresden Exposition, among the vacation-resorts of New England, at the Seattle-Yukon Exposition or right at home. Pictorial material is everywhere to be found. Let every camera-user search for it diligently and try to exhibit at the Salon. This distinction will mean more this year than ever before, because the pictures are to be shown

at the principal art museums in various sections of the United States.

We suggest that workers get in touch with those who are to receive American entries as early as possible. They are all experts, and can offer good suggestions about the merit of a particular subject and how best to treat it for exhibition purposes. Moreover, they will be very glad to furnish this advice upon request. The conditions governing entries were published in our June issue, and the names of those who will collect American work follow; entries may be sent to any of these addresses, or direct to the American Federation of Photographic Societies, Toledo Museum of Art, Toledo, U. S. A.

Fayette J. Clute, care of Camera Craft, San Francisco, Cal.

Miss Gertrude Man, 89 S. 10th St., Minneapolis, Minn.

George B. Goodwin, Wisconsin Camera Club, Milwaukee, Wis.

Geo. C. Elmberger, care Chicago Camera Club, 87 E. Lake St., Chicago, Ill.

E. G. Fountain, 203 Chamber of Commerce, Cleveland, O.

E. C. Brooks, 3546 Washington Ave., St. Louis, Mo.

William H. Zerbe, 345 Spruce St., Richmond Hill, L. I., N. Y.

R. L. Sleeth, 804 Home Trust Bldg., Wood St. and 6th Ave., Pittsburg, Penn.

Wilfred A. French, care of PHOTO-ERA, 383 Boylston St., Boston, Mass.

Copy of Contract-Permit

PHOTOGRAPHERS, whether professional or amateur, who desire to use the portraits of persons photographed by them for the purpose of exhibition, publication or advertising-purposes, will be interested to see a copy of a contract which is used by one of the leading New York photographic firms. It is as follows:

CONTRACT

In consideration of \$1.00 and other valuable considerations, the receipt of which is hereby acknowledged, I hereby agree to allow any pictures made of me by Davis & Eickemeyer to be used for publication or for advertising-purposes, and hereby give Davis & Eickemeyer the right to use, sell or transfer the pictures or negatives to other parties for publication or for advertising-purposes, with the privilege of copyrighting the same.

Name, SOPHY S. LYONS,

Address, 24A Charles St., Boston, U. S. A.

Witness, W. F. FERRIS, Boston, Feb. 20, 1909.

A Beautiful Pastoral Scene

IN the June issue we published a delightful little picture of sheep credited to J. E. G., further information as to its maker being missing at that time. We now learn that it was the work of J. Edward B. Green, of Pasadena, Cal., whose kindness in furnishing the print we now take pleasure in acknowledging.

BOOK-REVIEWS

Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.

THE RIVERSIDE ART-SERIES, by E. M. Hurl.

Twelve monographs devoted to the great masterpieces in painting and sculpture. Superbly illustrated in half-tone. 12mo. Cloth, \$1.50 each. Houghton, Mifflin & Company, Boston, New York and Chicago.

It is with genuine pleasure that we review these volumes. They certainly fill an important place in art-literature. Designed primarily for the use of art-students and the laity, these books contain the most useful knowledge regarding the great masters and their works, presented in language at once intelligent, concise and felicitous. The subjects treated are Greek sculpture, Tuscan sculpture, Raphael, Michelangelo, Murillo, Titian, Correggio, Rembrandt, Reynolds, Van Dyck, Landseer and Jean François Millet. Each volume contains sixteen pictures illustrating the various phases of the artist's genius, taken from the finest original photographs in the world and reproduced in a manner for artistic and technical excellence unequaled by any art-publication we have ever seen. These splendid facsimiles in monochrome — themselves works of art — will be a welcome relief to those who have depended, hitherto, upon cheap and extremely inferior half-tone reproductions for an acquaintance with the works of the world's greatest artists. Each picture is fully described and analyzed, and in a manner at once clear, accurate and attractive. A pronouncing vocabulary of proper names and foreign words is appended to the text of each volume. There are few books published, however elaborate and pretentious in character, which convey so much important and authentic knowledge of the arts of sculpture and painting as these delightful and inexpensive volumes, a complete set of which should be in the possession of every art-student, picture-lover, library, college and, in fact, every educational institution.

HOW TO JUDGE A PICTURE, by John C. Van Dyke. 12mo. Cloth, \$1.00. Eaton & Mains, New York; Jennings & Graham, Cincinnati.

No writer on art has won more deserving fame than J. C. Van Dyke, the author of several books so honestly helpful to the student and tourist. Every word from his fertile pen is prized as the expression of honest conviction and indisputable authority. Whatever course of art-study the novice may pursue, he will find this little volume by Mr. Van Dyke extremely useful in that it explains, in simple language, some general rules of art which may be applied when visiting a picture-gallery. There are short talks on color and harmony; tone and gradation; light and shade; perspective and atmosphere; values, texture and qualities; drawing

and form; composition; the object of art; ideas and subjects; style and individuality; and oils, water-colors, pastels and etchings. Although these lessons bear on painted pictures, they are equally serviceable in making beautiful pictures by photography. Pictorial photography is often weak, monotonous and inexpressive, because the pictorialist has but a superficial knowledge of what goes to make up a truly artistic picture — one which will stand the test of authoritative criticism. Every idea contained in the book is of direct, positive benefit to the photographer — the maker of pictures.

IN VIKING LAND, by W. S. Monroe. Octavo, profusely illustrated, cloth. Price, \$3.00. L. C. Page & Co., Boston.

Norway is so rich in mountains, ice-fields, waterfalls, fjords and other scenic enchantments that it is easy to devote an entire book to its geographical features alone; and that is what most writers have done. Mr. Monroe, on the contrary, has given us less of this sort of material and more of the very interesting facts about matters of human interest — the people, their habits, customs and traditions; and to the developed and developing civilization of the country. This latter consideration is so dependent upon history that several chapters are devoted to it, particularly the ages of the Vikings and the old Norse kings; and very interesting reading it makes.

The present-day people are discussed in every respect, but the author's observations concerning their mental and moral characteristics, their system of public education, their religion, and the Scandinavian mythology which formed its basis before the introduction of Christianity, are of especial moment. Norse literature, music, painting, sculpture and architecture come in for a goodly share of attention, and many are the interesting personalities about such men as Ibsen and Björnson, Ole Bull, Grieg and many others. It must not be thought, however, that the geographical interest of Norway is slighted. Several chapters are devoted to its fjords, mountains, forests, farm life and commerce; to methods of travel and suggestions for the guidance of travelers. Its three principal cities — Trondheim, Bergen and Christiania — are also separately described. A complete index materially enhances the value of the book for reference.

THE PHOTOGRAPHY OF COLORED OBJECTS, by C. E. Kenneth Mees, D. Sc. 69 pp. Demi-octavo. 14 plates, color-chart, photogravure frontispiece. Stiff paper covers. Tennant & Ward, New York. Price, 50 cents, net. Postage, 6 cents.

There has long been need of an authoritative book in English on this subject, and there are few men so well equipped to prepare it as C. E. Kenneth Mees, and he has had in his task the assistance of other men noted in this line of work. Among them may be mentioned A. J. Newton, André Callier, F. M. Sutcliffe, Furley

Lewis, J. C. S. Mummy and others. The result is a concise and definite treatment of the whole subject of photographing colored objects, which will prove of great value to commercial and scientific photographers, as well as pictorialists who desire real tone-values in their work. In addition to a general treatment of the methods of obtaining true color-values, there are chapters devoted to portrait, landscape and tri-color work.

A DICTIONARY OF ENGRAVING, by William Henry Baker, Cleveland, O. Price, boards, 75 cents.

Primarily this is a dictionary of photo-engraving, but there are so many things in the mechanical and fine arts which are closely allied with this process that many terms used in electrotyping, lithography, printing, photography and painting are included. *Mulum in parvo* best describes this little vest-pocket volume, for in it the person who wishes to familiarize himself with reproduction processes will find a ready solution of his frequent difficulties. The definitions are concise and accurate, while the several charts are of great value, particularly that devoted to the relative adaptability of printing-plates, papers, inks, duplicating-qualities and the best methods of reproducing various kinds of copy. This feature alone should commend the volume to every editor or writer.

KÜNSTLERISCHE GEBIRGS-PHOTOGRAPHIE, von Dr. Anton Mazel. Second, revised and enlarged edition. 16 full-page plates from original photographs by the author. 224 pages. Large 8vo. Price, 4.50 marks and 5.50 marks. Berlin: Gustav Schmidt.

This is, probably, the most important work on the subject of Alpine photography published in recent years, and peculiarly welcome at this time, when so many camerists are planning to secure their first views among the Rocky Mountains, the White Mountains and the Swiss Alps. Dr. Mazel, the author, is by experience, skill and temperament eminently fitted to perform so difficult a task. The result is an eloquent testimony to his rare scholarly and technical equipment, as well as to his thoroughly independent and scrupulously honest judgment in the matter of apparatus and working-material. He alludes with impartial approbation to Voigtländer & Sohn's Reflex Camera (Heliar lens), the Carl Zeiss' Paltmos Camera (Tessar Lens), and the Görz-Anschütz Camera (Celor Lens). He is equally fair-minded in his reference to the various makes of plates and films, although he mentions the products of only Swiss and German manufacture. The contents of the volume consists of several admirable prefaces and fourteen chapters, on the following subjects: "Photographic Apparatus;" "The Sensitive Plate;" "The Alpine Landscape;" "The Foreground;" "The Illumination of the Theme;" "The Winter Landscape;" "Water-Effects — The Lake;" "The Yellow Screen;" "Sky and Distance;"

"The Diaphragms;" "Instantaneous Photography;" "Excursion-Plans and Beginning of Activity;" "Enlargement and Reduction," and "Development of the Exposures." Then follows a series of sixteen reproductions of superb Alpine views by the author, together with a critical analysis of the artistic and technical merits of each picture. In justice to the author the reader should not expect too much of his book. No tourist is carried by his guide to the top of the "Jungfrau;" he must use his own legs. The mere reading or even the study of the best book does not make an artist. The book is but a guide to him who does not yet know the means of artistic expression. Most important of all is individual endeavor and practical experience. The worker filled with a desire to achieve pictorial success in high altitudes will find in Dr. Mazel's volume true inspiration, and counsel of indisputable authority.

THE SPORT OF BIRD STUDY, by Herbert K. Job. Cloth, octavo, profusely illustrated. Price, \$2.00 net. The Outing-Publishing Co., New York.

Dedicated to his son and "all other real live American boys," this book is designed especially for young people who wish to know something of our native birds, but it will be found equally fascinating to the older beginner in this interesting study. Mr. Job writes in "story form," but authoritatively and with enthusiasm, of the habits of our feathered neighbors as he saw them at short range. Great stress is laid upon the pleasure and adventure to be found in becoming intimately acquainted with the birds of any country town, and how best to go about it. The photographic side of the sport is given special attention, and the one hundred and thirty-four half-tones from photographs by the author are an inspiration in themselves. Most of these are pure records, but a few, such as mother birds feeding their young, are strong in human appeal.

✧

The monstrous white hair-ribbon for children has all the beauty of the African nose-ring, the utility of the French-heel slipper and the indispensability of the false hair-puff.

✧

Elmendorf in Africa

WHILE the commercial development of the Dark Continent is now engaging universal attention, additional interest is aroused by the hunting-trip undertaken by former President Roosevelt. Elmendorf, the noted traveler and lecturer, shrewdly took advantage of this circumstance, and has preceded Mr. Roosevelt in a journey up the Nile to the Soudan, where, last month, he obtained some very interesting pictures by means of his camera and moving-picture apparatus. From Cairo he went to Sicily, thence to Turkey and Russia. His next series of lectures will, doubtless, present the pictorial results of his recent travels and explorations.

WITH THE TRADE

“Portrait”

THIS is the name of an attractive little monthly magazine for professional photographers issued by the Ansco Company, Binghamton, N. Y. It is “devoted to art-in-portraiture, also profit-in-photography, and committed to a square deal.” Although dealing particularly with Ansco specialties, there is much general information of interest to every practitioner, while the user of this particular line of goods will find it of the utmost value. A feature of the magazine will be portraits of prominent men in photography printed on the cover. The first issue presents the familiar, genial countenance of Pirie MacDonald, New York City.

Prizes to Amateur Photographers

THE sum of one hundred dollars in cash-prizes to Rambler dealers, owners and amateur photographers has just been awarded by Thomas B. Jeffery and Company for photographs illustrating the pleasure and utility of owning a Rambler car. The Rambler people hit upon an uncommon method of procuring photographs for use in *The Rambler Magazine*, a publication for owners, and in general Rambler publicity.

Cash-prizes were offered to photographers and others who would make photographs of the cars in the hands of owners, paying particular attention to the Spare-Wheel feature, which belongs exclusively to the Rambler. There are nearly fifteen thousand Rambler owners in America, and the result was that several hundred photographs were received from all parts of the country.

The prize-winners are: Rambler Garage & Supply Co., Norfolk, Va.; W. K. Cowan, Los Angeles, Cal.; P. W. Lochmiller, Albion, Neb.; H. W. Brown, Tifton, Ga.; J. H. Linsley, New Haven, Conn.; H. W. Davidson, Marietta, O.; C. M. Willis, Auburn, Cal.; M. H. McCarthy, Somerville, Mass.; Arthur Cumings, Winthrop, Mass.; and John S. Butzer, Ephrata, Penn.

Another competition, closing October 1, is announced in the advertising pages of this issue. \$150.00 are offered in prizes.

Wellington Plates

THE photographic public in this country has now the opportunity to try the Wellington English Plates, including the famous Watalu, which requires only plain water for complete development. The back of this plate is coated with a non-halation compound containing all the chemicals necessary for an efficient developer, which dissolve when the plate is immersed in water. Ralph Harris & Co., 26-30 Bromfield St., Boston, are the sole United States agents, and will gladly furnish price-list and further information.

Voigtländer Cameras

WORKERS who are interested in a compact metal camera, particularly of the reflex type, should send to Voigtländer and Sohn, A. G. Optical Works, 225 Fifth Ave., New York, for the 1909 catalog. This pamphlet describes a line of cameras which for quality of workmanship and convenience in operation are unexcelled. All are built on rather unusual lines and the novelties in construction are all very welcome ones.

Agfa Metol Contest

WE wish to call the attention of our readers to the circular to be found at the various stock-houses relative to the Agfa Metol Contest. The Berlin Aniline Works will present an order for one ounce of any of their well-known Agfa developing-products to the ten amateurs who will send the greatest number of words made up out of the above three words.

Ask your dealer for a copy.

Faked Statistics

AMONG the numerous photograph studios advertised for sale during the spring months are several which would have appeared in PHOTO-ERA, because the cash accompanied the copy in each instance, had the proprietors complied with our request to guarantee the statements they wished to advertise. These are frequently very extravagant, and we do not feel justified in publishing them unless they are properly vouched for. As these endorsements were withheld, we declined to publish the advertisements, although they appeared in other publications. Our aim is to protect readers of this magazine against swindling-schemes, and for this reason our want-column is not so sumptuous as it otherwise would be.

Century Supremacy

THIS quality was never set forth more attractively or convincingly than by the latest catalog of the Century Camera Division, Eastman Kodak Co., Rochester, N. Y. Careful workmanship, the best of materials and exclusive features in construction have combined to give this line of cameras an enviable reputation. To him who contemplates buying a high-grade instrument this catalog will prove a rare treat, and bring to his attention matters he should know about. Send for a copy to-day.

The Typical Advertiser

“I GOT my wife through advertising.”

“Then you’ll admit that advertising pays?”

“I will admit that it brings results,” was the cautious reply.

An Exciting Adventure

THE New York *Herald*, in referring to a well-known worker, stated that he had neither studio nor dark-room, and that much of his best work had been developed under a table draped with bedclothes. This recalls to the mind of the editor a personal experience in the West, many years ago, and which might have had a serious ending. Desiring, one day, to reload his six double plate-holders and finding no suitable place in his boarding-house, he decided upon a novel and simple expedient. It was a bright, sunny day, ten o'clock in the morning, and the servant had not yet made up the bed. Closing the door and lowering the window-shades, he prepared to transform his bed into a dark-room. Knowing that he would have to work in the dark, he first removed the counterpane, woolen blankets and sheets, placed the plate-holders in a row on the bed and, close by, an empty box to receive the exposed plates and a box of unexposed ones near it. After removing his coat he proceeded to occupy the center of the bed, pulled the woolen blankets carefully over and around him and, in a kneeling posture, began operations. He carefully felt of the plate-holders with their valuable contents, also of the two boxes on the other side to be sure that everything was in order and in readiness. Then the slides were drawn, the precious plates removed and carefully placed face up on a pile at his left. It was getting warm, but he did not mind. The receptacle — oh yes, the empty box! The double covers were removed and the innermost portion was ready to receive the exposed plates. He felt himself perspire, and to breathe with less than his wonted ease; but what was that to an enthusiastic soul? Face to face the plates were placed into the box — one, two, three — a terrible shriek rent the air and caused his blood to run cold. "There's some animal in Mr. F.'s bed; it must be a bear. Quick, bring your gun, Mr. Brown!" Voices answered from below, several persons bounded up the stairs, a click betrayed the cocking of a gun; but with a yell the occupant of the bed dashed off the blankets and revealed himself. "Why, it's Mr. F.!" and with this exclamation the two women dropped in a faint on the floor, the landlord stared and broke into a roar of laughter. The camerist had just escaped being shot. The plates were exposed, a second time and ruined, of course, but their owner still lives to narrate the story of a hairbreadth escape.

Colonial Number of the "B. J."

THIS special issue of the *British Journal of Photography* has become an annual institution of great popularity, much prized by photographers in the British Colonies and foreign countries. Intended to present a review of the most recent introductions upon the photographic market, there can be no question that the issue of March 26 fulfils its purpose in the matter of letter-press, while the advertising-manager is certainly to be congratulated.

A New Shutter

A DECIDEDLY novel between-the-lens shutter called the Optimo has just been brought out by the Wollensak Optical Co., of Rochester. In making the exposure five leaves revolve, one end passing from the opening and the other taking its place. This makes high speed possible, while the star-shaped aperture, where the



light reaches the edge of the opening as well as the center, gives the utmost illumination to the plate. With this shutter exposures ranging from one second to $\frac{1}{3000}$ of a second may be given and any high-grade anastigmat lens can be mounted in it. Besides being compact, the instrument is very easy to operate. A full description with prices is found in the Wollensak catalog, mailed free upon request.

An Indispensable Catalog

THE amateur season is now in full swing, although thousands will defer their pictorial activities to the early fall, when they will record nature's beauties in the localities of their preference, be it the Rockies, the White Mountains or the historical sights to be seen in connection with the Dresden Exposition. He who desires the most approved hand-camera and one which will make photography more of a pleasure than ever should obtain a copy of the catalog describing the latest styles of Premo cameras and accessories issued by the Rochester Optical Division, Eastman Kodak Co., Rochester, N. Y. All styles of these popular hand-cameras are clearly and attractively described. This attractive catalog contains, also, illustrations and complete description not only of the devices for using plates or films, but, also, the highly desirable film-pack, also light and compact apparatus for developing plates or films, several popular forms of shutters, including the focal plane and other necessary adjuncts to a complete working outfit. A copy of this catalog will be sent free to any one on application.

If there is a yellow streak in you it will show in your voice.

PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXIII

AUGUST, 1909

No. 2

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WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return postage is enclosed.

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“Three ducks on a pond,
A grass-bank beyond,
A blue sky of spring,
White clouds on the wing.
What a little thing
To remember for years,
To remember with tears!”

RUDOLF EICKEMEYER, JR.



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Photography Afield

DAVID J. COOK

*"Nature knows her own — and to her sons will more
And more to purpose freely pour
In one wood-walk than learned men
Can find with glass in ten times ten."*

THE sun's warm waves have driven away the frosts of winter, and the tears of heaven have moistened the soil. Gentle winds soothe the whole face of the earth, and therein stirreth a desire that awakes and sings. The trees, the shrubs, vegetation and the flowers — all spring into life and are clothed in their loveliest costumes. Nature is striving her best to please all mankind, and all things lovely and lovable delight one another. Now is the time when the heart of the true lover of the beautiful, whether poet, painter or artist-photographer, is filled with the intense joys of living. Old things have passed away, or have become as new, and it is only to be expected that the disciple of Daguerre will be impatient to away to the fields in search of the pictorial.

To see nature as she is, however, one must be in perfect accord and in tune with her. Make her one's ideal. Be nature-lovers, for the nature-lover is one who admires, deeply, the ever-changing panorama, and longs to depict its varying moods. To him photography offers a medium of expression far more to be desired than mere word-pictures.

Art is the expression of genius, and the artist-photographer thus endeavors to express his conception of what constitutes the pictorial; and whether the thought or conception expressed be in words, phrases, pigments and brush, or camera and sensitive media is immaterial. That photography is a fine art is herein answered; but the worker must be possessed of the true artistic feeling, which makes for good poetry, for art is poetry; and the question whether the worker is possessed of the spirit essential to good poetry, painting and photography is of first consideration. Is he a fine artist? Does his work possess that real sentiment and finish which lives and excites human sympathy? Has he



MOONLIGHT AT SEA

WM. NORRIE

skill? The artist-photographer, like the poet and painter, should so select and arrange his composition that it is intelligible and worth the telling, and so tell it that others may readily grasp its beauty.

We derive from nature many lofty ideals, and she must not, therefore, be recorded as so much fact, even when great skill is exercised in the execution; for although nature is not art, nor art nature, they are not at variance one with the other. Art is the perfecting of nature — selected nature; and has its beginning and ending when the worker, so shaping his raw material, meets his ideal standard of beauty.

He who studies nature most will make the best pictures. The man who knows most sees most, enjoys most, and he realizes that magnificent nature cannot be presented through imprinting commonplace detail on sensitive media.

*Penna. State Library,
Harrisburg, Pa.
Not to be Taken from
the Library,*



OUTWARD BOUND

WM. NORRIE

Photography is not, in itself, picture-making; for nothing will make a picture of a scene which does not possess the elements of the pictorial. It is not enough that the scene be beautiful; but whether or not it will make a picture. Will it photograph? Would not another view-point, a different season of the year or time of day, or the presence of animated life add to its pictorial capabilities? Pictures are first made — taken afterwards; and the best one can do in all the actual processes of exposing, developing, printing, and in the manipulation of one's chemicals, is but a poor substitute for, or imitation of, the pictorial. Picture-making must not be confounded with picture-taking. It lies, not, as many photographers suppose, in performing certain mechanical actions. Dodging, retouching, masking, doctoring, etc., may be conducive to photographic perfection; but it is the trained eye, the intellectual, versatile, progressive student, superbly equipped by technical training, who first recognizes the picturesque, and produces works of art that are really great.

How many people see in nature anything but the commercial value of things? Possibly they are afforded momentary pleasure, in a material sense, but do not stop to consider its æsthetic value. Some, however, stop and ponder. They look and listen to the story told, and are impressed with the majesty and mystery. These are the people who are nature's own — the poets, painters and artist-photographers.

Almost any vista will charm the educated eye — the woodland path; the peaceful vale; the bit of marsh; the river-bank; a bit of sky; the spectral pine, tipped with the morning dew, or the forest patriarchs outlined against the sunset-glow; — each has its own story to tell, and proclaims that the hand which made them is divine. Is it any wonder that the moment we begin to select any portion of this wealth of beauty and grandeur, with a view to make it our own, and confine it within the boundaries of a photograph, we approach the problem with fear and trembling? For it is only when we have learned, through repeated failures, not to attempt an elaborate composition that we are assured any measure of success. Scenes of grandeur or unusual subjects present great difficulties to the pictorial worker. Better far that the photographer be content to portray simple, homely scenes, in a simple manner, eliminating all unnecessary material not absolutely essential to the story. He should remember that the greatest truths are told in the fewest words, and that neither grandeur nor beauty, alone, can give charm.

One of the greatest faults which characterizes the work of many a photographer is an overburdening of the picture-space with detail. He is too literal in his treatment of the subject. The painter, on the one hand, often taxes, to the utmost, the patience of the layman to discern his theme or conception; while the photographer, on the other hand, neglects or ignores the element of mystery altogether.

To produce a picture that will outlive passing interest, and that will draw one again, and yet again, to admire some new beauty, and hold his attention indefinitely, the story must be unfolded gradually. It will not do to tell all. Something must be left to the imagination. The critic prefers to judge some things for himself. One should lead the observer, step by step, into the picture — keeping the point of interest, or that part which is of principal importance, well within the foreground; emphasizing this principal theme by lights and lines; subordinating the non-essentials; using the middle-distance to unite foreground to background, which should exist merely as a *background*, uniting the whole, and harmonizing both in tone and line, so that the story is clear and intelligible.

With a proper appreciation of art, as herein exemplified, and a knowledge of technique — for the photographer can no more afford to excuse or ignore his technique than the poet his meter or the painter his coloring or drawing, on the plea that it is artistic, because treated in some uncommon way or done by some unusual process — success is assured.

The present-day photographer must come to realize — what is so patent to the old, experienced practitioner — that to produce an artistic photograph requires practice of the science, as well as the art, of photography — a blending of the scientific with the artistic.

Technical perfection and artistic photography are synonymous: the one represents a conception; the other, its expression or execution.

(An article on "Landscape Photography" will follow next month.)

Copying Pictures by Photography

WILLIAM S. DAVIS

AS most photographic workers frequently have occasion to make copies of pictures, a few hints in reference to this line of work may be desirable, as it is not an easy matter for those who are inexperienced to secure good results, the difficulties presented being quite different from those in other kinds of photographic work. Inasmuch as each class of pictures requires individual treatment, I will take them up one class at a time. First, however, let us consider the equipment best adapted to this work.

The camera must have sufficient bellows-extension to permit focusing sharply upon an object at very close range, the distance depending of course upon the size of the original and that of the copy desired; but when a copy the same size as the original is wanted the bellows must be long enough to allow the lens to be separated twice the distance from the focusing-screen that is necessary for ordinary outdoor work; or, in other words, a lens of six-inch focus must be removed twelve inches from the sensitive plate to yield an image the same size as the object. It may safely be taken for granted, however, that almost any of the ordinary folding-cameras with double or triple extension-beds will answer the purpose, although none of the light, folding-styles quite equals for convenience of manipulation the older forms of back-focus view-cameras. A short-bellows camera may be utilized for copying, by placing one of the supplementary lenses, made for such work, over the regular lens. A wide-angle lens can also be used, although in either case it would be necessary to stop down more than with the regular lens.

If one desires to copy subjects in color, a ray-filter or color-screen must be included in the outfit, as most paintings cannot be satisfactorily reproduced without one. It need not be very deep in color, however. A medium yellow filter which increases the exposure only three or four times will give good color-values on color-sensitive plates. In this connection, isochromatic or orthochromatic plates (preferably backed or double-coated) should be used. They are equally good for general copying; although for pictures in monochrome ordinary plates of slow or medium speed will yield satisfactory results.

Now for the subjects, which I will divide into two general classes — first, pictures in monochrome and, second, those in color.

SUBJECTS IN MONOCHROME

Under this heading may be included photographic prints, half-tone reproductions, drawings in "wash," distemper, crayon and pen and ink; also engravings and etchings. For copying-purposes these must be separated into two subclasses, depending upon whether the light and shade or "half-tones" of the picture are produced by various shades of gray, as in photographs or wash-drawings, or by lines of pure black, as in pen-and-ink drawings.



A MARCH DAY
E. M. ASTLE



To copy a photograph, or any picture of the first-named class, it should be fastened to a board and set up at one end of a table or bench and the camera placed at the other; but the axis of the lens must be at right angles to the surface of the picture and a good light should fall upon the picture. As swinging or tilting the camera would distort the image, either the camera or copy-holder must be moved about until the lens is opposite the center of the picture. Where much work is done, it will save time in focusing and arranging the size of the image to use a long board provided with blocks or cleats at one end, to keep the camera parallel with the sides, and with suitable guides its entire length for a copy-holder to slide between. A simple style of copy-holder may be made by nailing two boards together in the form of the letter "L," one forming the base and the other the vertical support for the picture, which is held in place by artists' thumb-tacks, heavy rubber bands or any other suitable means.

If the picture is on rough paper the grain may be largely prevented from showing in the copy by having the light as nearly back of the camera as possible, so it will fall more flatly upon the work, or by diffusing the light. This may be done by placing a screen of white tissue-paper or muslin between the light and the picture, and, if necessary, using a large white card or screen to reflect the light from the opposite side. A full exposure will also be a help in preventing the grain from showing in the copy. With an unmounted photograph the grain may be removed temporarily for copying-purposes by soaking it in water, squeezing face down on a sheet of clear glass, and then copying while still wet.

Focusing may be done most conveniently with the lens at full opening, at least while arranging the size of the image on the ground-glass. Care should be taken, however, if the lens does not have a perfectly flat field, to equalize the degree of definition evenly over the entire field, and then stop down until the image is sharp in every part. With some lenses it is necessary to readjust the focus after stopping down, so it is well always to examine the image on the focusing-screen after changing the size of the stop. One should avoid the use of a smaller stop than is necessary to obtain the definition required, as it prolongs the exposure needlessly. Stop $f/16$ is usually small enough, unless a wide-angle lens is used. If any difficulty is experienced in focusing sharply, lay a sheet of printed matter, such as a newspaper heading, in contact with the work, and focus upon the letters with the aid of a magnifying-glass.

Almost any plate can be used for the class of subjects under consideration, but it is easier to secure clear, brilliant negatives with plates of slow or medium speed. If a rapid plate is the only one available, give a short exposure and use a strong developer restrained with bromide. When using slow plates the same rule holds good if the picture to be copied is flat and weak; but should it be very strong in tone and contrast, give extra full exposure and use a normal developer without bromide.

The exposure required is best determined by trial, as it may vary from a few seconds with rapid plates to a number of minutes with slow ones, according to the strength of light, size of lens-stop used and subject; but it will be easier to es-

timate correctly the exposure which should be given by working as much as possible under the same conditions. A small picture will require more exposure than a large one, for the same size copy, on account of the lens being further from the plate, which, for the time being, decreases the *f* value of the stop in use. As an approximate guide in copying a photograph equal size, a plate of slow to medium speed would require from thirty to sixty seconds' exposure with stop *f*/16 in the lens.

Any clear-working developer will produce satisfactory negatives if the exposure has been correctly timed; but those who desire a definite formula will find the following a good one:

Edinol	8 to 10 grains
Sodium sulphite (dry)40 "
Sodium carbonate (dry)40 "
Water	4 ounces

With rapid plates, or flat subjects, a few drops of a ten per cent solution of potassium bromide may be added. With correct exposure development will be completed in three to five minutes, at a temperature of 60 to 65° Fahr., the time depending upon the amount of contrast and opacity one wishes the negative to possess.

In copying pen-and-ink drawings a different method must be followed than that employed in dealing with photographs. In this case all gradation of light and shade in the picture is produced by the thickness of and degree of separation between the pure black lines, and not by any change in depth of tone; and the object is to produce a negative with clear, transparent lines upon an opaque ground. It is, therefore, necessary to take particular care in focusing to have the lines absolutely sharp, to avoid any veiling by diffusion of definition, and to use a plate and developer which will give the required contrast. There are several kinds of plates on the market intended for such work, known under various names, such as "Contrast," "Process," etc. If much work is to be done these plates are recommended; but where this is not the case, slow, backed or non-halation plates can be used successfully in their place; or if even these are not at hand, a slow plate which will work with great clearness may be evolved by immersing (in a dark-room, of course) any fast plate for two minutes in a one per cent solution of potassium bichromate, rendered acid with a few drops of hydrochloric acid, afterwards washing in several changes of water, when it may be exposed either before or after drying. This plate will require fifteen to twenty times the regular exposure; but as it is almost impossible to fog a bichromated plate through over-exposure, one need not be afraid to expose too long, of course within reasonable limits. Whatever kind of plate is used, enough exposure must be given to obtain sufficient density in development to make an opaque ground in the negative.

For developing copies of line-work I know of nothing better than a developer prepared by the Cramer "Contrast" formula.

“Contrast” Developer for Line-work

Water	3	ounces
Sodium sulphite (dry)	48	grains
Edinol	10	“
Potassium bromide	2	“
Potassium (or sodium) carbonate (dry)	24	“

If preferred, 12 to 15 grains of hydroquinone may be used in place of edinol.

Development must be thorough to secure the necessary opacity. Should the lines appear veiled and grayish after the negative is fixed, they should be cleared by immersing the plate in a fresh hypo solution, to which has been added a small quantity of saturated solution of potassium ferricyanide; but as this is a strong reducer, its action should be stopped as soon as the lines are cleared.

When it is desired to secure as close an imitation of wood or steel engravings as possible they should be treated as line-work; but in most cases it is better to treat them the same as a photograph or similar print, particularly when making a small copy of a large engraving, as the fine lines sometimes run together in a small reproduction, and if treated as line-work would block up the shadows, producing a harsh result.

With etchings much depends upon how they are printed. If the lines are sharp on a clear ground the same method used in copying pen-drawings might be employed; but where, as is more often the case, a certain amount of ink was left on the surface of the etching-plate to produce a “tint” on the proof, and also soften the lines, one should treat the etching the same as any picture containing half-tones.

In copying a picture of any kind which is creased or wrinkled it should be placed in a printing-frame containing clear glass, and copied while under pressure; and if the print is on thin paper with printing or other matter on the back, which shows through, back it up with black paper or cloth pressed into close contact.

SUBJECTS IN COLOR

Oil-paintings are probably the most difficult pictures to copy successfully, not only because they usually contain a large amount of partly non-actinic color, but on account of the texture of their surfaces and the care necessary to avoid reflections; consequently, considerable skill is necessary to secure the best results. One must try to secure as nearly as possible an exact rendering in monochrome of the relative values of the colors in the painting. To accomplish this, isochromatic plates (preferably backed, or the non-halation kinds) should be used, generally in connection with a color-screen, although when a painting does not have strong color-contrasts it is not always essential to use a screen or ray-filter, as the object of using one is simply to hold back the action of the over-actinic colors when they are present; so before an exposure is made the color-contrasts in the picture should be carefully considered.

The first thing to be attended to, however, is to see that the picture is properly illuminated; and this requires great care. A soft, diffused light is the best. If the painting cannot be moved about, one must, of course, make the best of it, and depend upon movable screens, either opaque or translucent, of sufficient size to shut off stray light, which might cause reflections, or to subdue and equalize intense direct light. When the picture can be moved about, it is best to work by the light from one large window or skylight — a north light of choice, although not of necessity — the painting being placed on an easel or other suitable support, several feet from and back of the window, and in such a position that the light will fall evenly upon the entire canvas. As the light from a window slants downward, the best light is usually near the floor, and a picture will be more evenly illuminated by placing it on a low support and sometimes tilting it backwards a little. With a large canvas, particularly, more care is required; and in such a case it is best to cover the entire window with thin, white muslin, to diffuse the light evenly throughout the room. If the painting is too large to illuminate evenly in this way in the room at one's command, copying in the open air may be resorted to, doing the work on a quiet day by diffused light; but it is usually more difficult to avoid reflections, unless the picture be enclosed by suitable screens.

Should any reflections be seen upon the surface of the painting, when examined from the same standpoint as the camera, move it forward, if possible, until the light comes more from one side; and if this does not remedy the trouble, place a black screen on the side opposite the light and at right angles with the painting, for the cross-lights which cause these reflections are produced by stray light striking the surface of the picture at an improper angle, and partly enclosing the picture with one or more dark screens will exclude them. If the grain of the canvas or pigment does not show too prominently the exposure may now be made; but as the paint, particularly in the high-lights, is heavily "impasted" on many paintings, a strong side-light will sometimes cause the projecting points of pigment to catch and reflect the light, producing minute white spots all over the work, and were a negative made under these conditions the finished print would look as though it were dusted with chalk. In such a case, one or more thicknesses of white cheese-cloth or thin muslin should be placed over the window to diffuse the light. If the effect is still unsatisfactory, the painting may be turned *away* from the window and illuminated altogether by reflected light; but this is seldom necessary.

The exposure required is usually much longer than for black-and-white work, even without a color-screen, and also varies more on account of the difference in actinic power of the colors in different paintings. As an example of this variation, I quote from my note-book the exposures given for two paintings which were copied the same day under similar conditions. Both were illuminated by clear light from a window. On one, a Cramer Instantaneous Isochromatic plate was exposed one minute, with stop $f/11$, and an Ideal ray-filter on the lens; while the other required three minutes' exposure with the same kind of plate, ray-filter and size of stop, the difference being due to the fact that the first sub-



A CLOSE DECISION

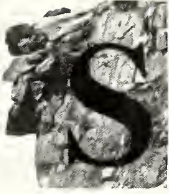
R. W. SEARS

ject was composed largely of grays and blacks, with only a little red and yellow, while the second picture contained dark reds and browns in opposition to blues, greens, grays and white, making it necessary to give a longer exposure to secure detail in, and proper values of, the less actinic dark colors. It is safe to say that a painting which contains much yellow, red, or dark brown will require several times the exposure necessary for a picture composed principally of cool colors. The exposures mentioned are not to be taken as the time which should generally be given, as diffusing the light, and other things, make it necessary to depend upon personal experience; but as there generally seems to be a tendency toward exaggeration of contrast in copies of paintings, exposures should be fully timed for the darkest colors, so that all the details will appear in development before density is attained in any part. Development should not be continued too long, however, as a fairly thin negative with soft gradation of tone will make the best print. The first developer mentioned in this article is an excellent one for this work, when used without bromide; but it may advantageously be diluted with from one-half to an equal amount of water, if the subject contains strong contrasts.

Water-colors, pastels and colored prints are less troublesome to copy than oil-paintings, on account of their smoother surface, and freedom from gloss (unless under glass); otherwise they require the same general treatment, except that less exposure is usually needed.

Practical Telephotography

STEPHEN E. WOODBURY



SOMETIMES it is desired to obtain a larger image of an object than the ordinary lens and camera will produce. The most common reasons for this are when a position near the object is inaccessible or when the drawing of the image will be improved by working at a distance. Since the size of the image is directly dependent upon the focal length of the lens employed, a magnified image may be obtained by using a lens of sufficient focal length. In theory this would be very satisfactory, but practically it requires an expensive lens and large camera. Another way is to obtain a negative of the small image as usual and then enlarge from this negative. This method is fairly convenient, but has the disadvantage that the final image has suffered from two attempts at focusing and the enlarged image is made from a small negative having considerable grain, which effectually prevents a sharp enlargement above a moderate power.

A more satisfactory way is to magnify the original image before it is received upon the photographic plate. This original image, being in air, has no grain, and therefore the sharpness of the final image is not impaired thereby. Such magnification may be accomplished by the use of another lens similar to the one used for the original image; i. e., two positive lenses may be used. This requires an extraordinarily long camera and is employed only for special purposes. When a concave or negative lens is fitted between the plate and the positive lens with which the camera is already equipped a magnified image of reasonable power may be produced with a relatively short bellows-extension. If these positive and negative lenses are so arranged that the distance between them can be varied the combination will be able to produce images varying from two or three to eight or ten times the size of the original. This constitutes the telephoto equipment in common use. It is usually supplied as a telephoto attachment containing the negative lens and having a suitable arrangement for adjusting the separation of the lenses for various powers of magnification.

Fig. 1 illustrates such an attachment, drawn partly in section so as to show the construction. To fit this attachment to the camera, the shutter, with the positive lens in place, is unscrewed from the lens-board and the telephoto attachment is inserted in its stead. The shutter with the lens is then screwed into the open end of the telephoto attachment.

It is necessary to call attention to a few properties of the lenses used before entering upon an explanation of the principle of the telephoto system. The positive lenses with which cameras are usually equipped are known as converging lenses, because rays of light coming from a distant point will become convergent by passing through the lens and proceed to a focus, as shown in Fig. 2. The distance from this focus to the optical center is the focal length of the positive

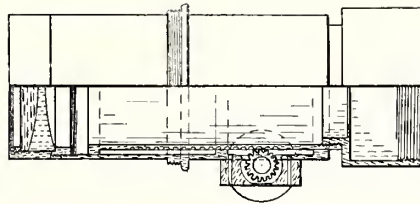


FIG. 1. SECTION OF TELEPHOTO ATTACHMENT

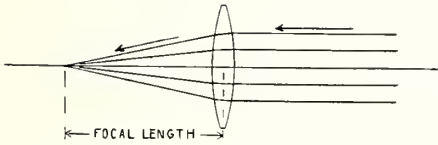


FIG. 2. CONVERGING OR POSITIVE LENS

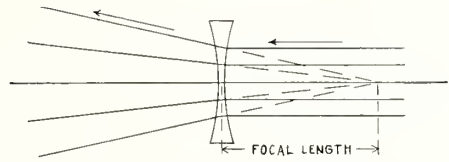


FIG. 3. DIVERGING OR NEGATIVE LENS

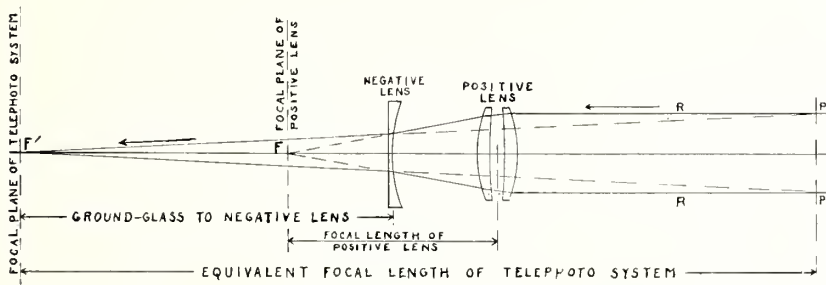


FIG. 4. DIAGRAM OF TELEPHOTO SYSTEM

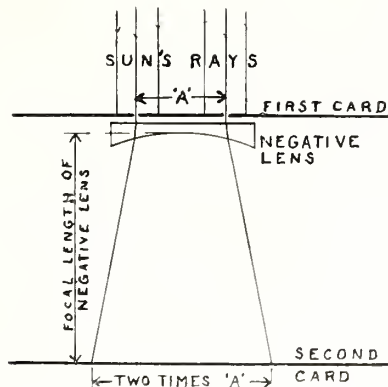


FIG. 5. FOCAL LENGTH OF NEGATIVE LENS

lens. Negative lenses are known as diverging lenses, because rays of light coming from a distant point will become divergent by passing through the lens and will not proceed to any real focus, as shown in Fig. 3. However, if these rays are traced in a reverse direction through the lens and produced in straight lines they will meet in a point, called the virtual focus. The distance from this point to the optical center is the focal length of the negative lens.

Fig. 4 shows diagrammatically the arrangement of the lenses and the direction of the light-rays within the telephoto camera. The rays, RR , from a distant point, by passing through the positive lens, become convergent and proceed toward a focus at F ; but before coming to a focus are intercepted by the negative lens, which, though it does not render the rays divergent, does, by its divergent effect, cause them to proceed to a focus at a greater distance, as at F' . Upon retracing these rays from F' to the negative lens and continuing them in straight lines until they intersect the original rays at PP the points of intersection will be in the plane of the optical center of the system, and the distance from the focus F' to this plane will be the equivalent focal length of the system. Obviously, this focal length is greater than that of the positive lens and will produce images correspondingly magnified. It is interesting to note that this optical center is some distance in front of the camera and that a much shorter bellows is used for a telephoto system than would be required for an ordinary lens of equivalent focal length.

If the positive and negative lenses are separated until the distance between them is equal to the focal length of the positive lens no magnification of the image is obtained, because the plate must be in contact with the negative lens. If the lenses are brought together until the distance between them is equal to the difference of their focal lengths the light-rays will emerge from the negative lens parallel and will not come to any practical focus. In theory, though, they will come to a focus at infinity, and consequently the image will be infinitely large. It is between these extreme positions that the negative lens is used in telephotography and that the following statements hold true. Increasing the distance between the positive and negative lenses decreases the focal length of the system and requires a shorter extension of the bellows. Conversely, decreasing the distance between these lenses increases the focal length of the system and requires a longer bellows-extension. As the image is magnified, the size of the plate must be increased, unless it is not required to include the whole of the magnified image.

Most telephoto attachments have graduations by which one may set them for any given magnification and then focus the camera as usual. However, if an attachment is to be used with lenses differing from that for which it was fitted, or in case the graduations are not supplied, the magnification can be obtained by the following method. It is first necessary to know the focal length of the negative lens. A card, in which two small holes have been pierced, is placed against the negative lens and the sun's rays allowed to fall on the card. A second card, held as shown in Fig. 5, is then moved to and from the negative lens

until the spots of light on it are just twice as far apart as the holes in the first card. The distance from the second card to the lens is the focal length of the negative lens. With the magnified image in focus on the ground-glass the magnification is found by dividing the distance from the ground-glass to the negative lens by the focal length of the negative lens and adding one to the quotient. For example, if the distance from the ground-glass to the negative lens is twenty-one inches and the focal length of the negative lens is three inches, the magnification is $(21 \div 3) + 1 = 8$.

The proper exposure is found by multiplying the exposure that would have been given for the positive lens, used alone, by the square of the magnification; i.e., if an ordinary photograph required $\frac{1}{100}$ second, then an eight-power tele-photograph would require $\frac{1}{100} \times 8 \times 8 = \frac{64}{100}$ seconds, approximately $1\frac{1}{2}$ seconds. The equivalent focal length of the system (useful for measurements of size and distance) is found by multiplying the focal length of the positive lens by the magnification. If a positive lens of six-inch focal length were used in the above example the equivalent focal length of the system would be $6 \times 8 = 48$ inches. It will be noted that this forty-eight inches focal length is used with a bellows-extension of only twenty-one inches.

The equivalent diaphragm-opening is found in a similar manner. It is necessary only to multiply the diaphragm-opening of the lens, as read from the mount, by the magnification. Thus, in the case above, if using the lens at $f/8$, for eight-power, the equivalent stop is $(8 \times 8) = f/64$. A telephoto system — and it is equally true of all systems of lenses and single lens — should not be stopped to an opening smaller than $f/71$; since the diffraction of light at the edges of smaller openings causes the image to be less sharply defined than when larger openings are used. For this reason it is always advisable to check the equivalent diaphragm-opening.

Evidently, for either rapid or high-power work a positive lens having a large working-aperture is needed. Suppose it is desired to equip a hand-camera. Street-scenes require a shutter-speed of at least $\frac{1}{25}$ second, and a properly-exposed plate could not be expected with a diaphragm smaller than $f/16$. A system made of a rapid rectilinear, $f/8$, positive and a suitable negative lens would be only two-power — not enough to be of value. But if a portrait-lens of $f/4$ be substituted for the rapid rectilinear the system may be worked at four-power with an equivalent diaphragm of $f/16$. Equipped with a focal-plane shutter, it becomes a veritable detective camera, capable of photographing with satisfactory size moving objects unusually far away. In a suitable stand-camera an $f/4$ portrait-lens at full aperture, fitted with a good negative lens, may be employed up to eighteen-power. The equivalent diaphragm of the system at this power is $f/72$; or practically equal to $f/71$, the limit previously mentioned. A better appreciation of this high power may be had if one realizes that the original image is magnified in the same proportion as an enlargement from a $4'' \times 5''$ negative to $72'' \times 90''$, or a superficial enlargement of 324 times.

Anastigmats are well suited for use as positive lenses in telephoto systems. The large working-aperture and fine definition render very sharp images at high power. They have the advantage of always being available for ordinary work if required. Rapid rectilinear lenses used for telephoto work will render sharp images up to six or eight power. In all cases the negative lens must be of good quality, since the magnification of the image is fully as important as its original formation. For average work a negative lens having a focal length about one-half that of the positive lens will be best. For high power with best lenses it may be one-third to one-fifth that of the positive, and thereby obviate the use of an unusually long bellows.

All positive lenses admit a large amount of light that is not used in forming the image but does strongly illuminate the inside of the telephoto tube and bellows, from which places it is reflected to the plate, producing light-fog. It requires a lens-hood consisting of an unusually long, small tube to cut off these rays effectively. A series of diaphragms in the telephoto tube will assist in disposing of any surplus light not intercepted by the hood.

Probably the greatest difficulty in telephotography is that of overcoming vibration. As the optical center is far in front of the lens, a slight movement of the camera serves to displace it a great deal, this in turn making a decided displacement of the image on the plate. It is analogous to the multiplying effect of a lever. A very strong tripod or some solid support will steady the camera unless there is high wind, when it must be sheltered. Frequently, in distant work, the image on the ground-glass will dance, even though the air seems very clear. This is caused by the light from the object passing through unequally heated bodies of moving air. Since it cannot be overcome, the work must be suspended until it is inappreciable. Some difficulty may be encountered in focusing. Not only is there little illumination, but the long focal length often seriously affects the depth of focus for near views, requiring still greater care to secure even definition. The focusing-cloth should be drawn tightly and some time allowed for the eyes to become accustomed to the weak light.

Telephotographs tend to be flat, because of the veiling effect of the haze that is nearly always present in distant views. Orthochromatic plates and a ray-filter will overcome this to a decided extent. However, it may still be best to avoid over-exposure, that prolonged development may increase the contrast. Non-halation plates, though not essential, may often be used to advantage, especially where fine detail is required.

To photograph a distant object on a larger scale than usual is an interesting operation, and a study of the principles involved generally increases the interest. Yet one must not expect too much in the way of results. Generally the view is rendered satisfactory in size and drawing, but seldom seems like a telescopic view unless high-power systems are used. Almost never is there any panoramic effect; on the contrary, the view invariably contains only a small angle.



MISS LENA L.
DUPRAS AND COLAS



Telephotography is designed primarily for photographing distant objects, the resulting picture appearing more as the view itself than is usually the case. A lens-system of great focal length will produce in the picture the effect of a drawing, but this is not serious in the systems generally used. Mountain-peaks, bits of natural scenery, buildings in elevated situations, etc., afford suitable subjects for this class of work. General or broad mountain-views cannot be taken, because they require a much wider angle than can be included. Architectural details of large buildings and sculptured work located in inaccessible places is another important field. The objects taken from a distance are not only of good size, but their beauty has not been impaired by foreshortening. Natural history opens a field by itself. One easily appreciates the advantage of being able to work at a distance from the timid wild folk, and here again the correct rendering of the drawing is particularly valuable. Moderate powers, with their fine graduations, give the pictorial photographer a liberty almost equal to that of the artist. The point of view can be chosen to a nicety, and that power employed which will put on the plate exactly as much of the view as desired. In portraiture the advantage of correct drawing resulting from its use offers a particular field for the telephoto system. There is also a saving in the length of studio needed; for while the drawing of the portrait is dependent upon the distance from lens to subject, the size is dependent upon the focal length, which in the telephoto system is always much longer than the bellows. A considerable drawback is the serious loss of speed, for in portraiture, as nowhere else, speed is an important consideration. However, if photographers and the public desire portraits such as the telephoto system will produce, it is quite possible that the lens-makers can overcome the loss of speed sufficiently to bring it into general use. Until then the expensive portrait-lens of a single excessive focal length will, at least, point the way so that, when a fast telephoto portrait-system, with its variable focal length, is presented it may find a ready field.

The photographs are intended to illustrate the results that may be obtained. "A" is a view taken with a $6\frac{1}{4}$ " rapid rectilinear lens. Here the tower is of satisfactory drawing, but too small to be of interest. "B" is a near view of the same tower taken with the same lens. The tower is of satisfactory size but considerably distorted, especially the roof. "C" is a six-power telephotograph from the same position as "A." Both size and drawing are now rendered satisfactory. The telephoto attachment contained a negative lens having a focal length of three inches and set fifteen inches from the ground-glass; therefore the magnification was $\frac{15}{3} + 1 = 6$ -power. The positive lens was the rapid rectilinear used for taking the views "A" and "B." The equivalent focal length was $6 \times 6\frac{1}{4} = 37\frac{1}{2}$ inches. For the views "A" and "B" the exposure was $\frac{1}{50}$ second at $f/8$. For the telephoto, with the positive lens at the same stop and a four-times ray-filter, the exposure was $\frac{1}{50} \times (6 \times 6) \times 4 = \frac{144}{50}$, or three seconds.

It is to that excellent work Dallmeyer's "Telephotography" that the writer is pleased to acknowledge indebtedness and to refer the reader for further information regarding this subject.



B. NEAR VIEW WITH RECTILINEAR LENS



A. DISTANT VIEW WITH RECTILINEAR LENS



C. 6-POWER TELEPHOTOGRAPH FROM THE SAME POSITION AS A

The Dresden Photographic Exposition

English and American Work

E. O. HOPPÉ, F. R. P. S.

THERE can be no manner of doubt that the International Exposition at Dresden is the finest exhibition of all photography has accomplished that has ever been held. In the pictorial, the scientific and the trade-sections it is unique. Not only its size and comprehensiveness, but the skill with which the exhibits have been marshaled and the way in which it demonstrates the origin, the development and the present uses of photography are, indeed, remarkable. Practically all the nations of the West are represented, while most of them have sent of their best to show photography as an art and a science, and also as the handmaid to all the other arts and sciences. The extent of the grounds, the importance of the several buildings and the *tout ensemble* are highly impressive, and it will be a matter of much surprise if the world in general is not more than satisfied with the results attained.

England is well, but not extensively, represented in most sections, in several of which she shows to much advantage. It may be well to speak individually of the exhibits in the pictorial section, which includes the work both of amateurs and professionals.

ENGLISH PICTORIAL SECTION

The rooms in which this exhibition is held are tastefully decorated, and the effect of delicate coloring and refined ornamentation is delightful. Mrs. Barton, of Birmingham, shows several of her best pictures. Walter Benington has gained a reputation which he does his best to live up to. His work is sometimes strong and effective and then, again, delicate and dainty. He shows among others his successful picture "The Temple of the Sun" and one of his war-horses — "The Church of England." Archibald Cochrane's work is always good and, generally, new. "Mount St. Michel," shown here, is one of his best. A. H. Blake, though he has followed none of those new crazes that have led some of his cotemporaries into profitless by-paths in pictorialism, still keeps up a steady output of pictorial work characterized by excellent composition and genuine artistic feeling. Now and then he gives us a really fine work either of strength, decorative quality or tender and delicate tone. His pictures are always looked forward to and remembered with pleasure. Among his best works shown here are "The Gondola Pool," "The Fountain," "The Medallion" and, above all, "Cannon Street," which last is perhaps the best of the series. It is refreshing to see some of the late Horsley Hinton's fine landscapes, which were such familiar features of past Salons in London. There are certainly some of his best pictures on the Dresden walls, including "Weeds and Rushes" and "Fleeting and Far." Charles Job is another worker who, like Blake, keeps his head and continues steadily on his successful way. He sends of his best, including "Sussex Homestead." Alexan-

der Keighley has been a tower of strength in British pictorial circles for a long time past, and the rejection of his work from the 1908 Salon at once foreshadowed the failure which awaited its organizers. He is represented by "Corpus Christi"—certainly one of the finest pictures in composition and feeling that has ever resulted from a successful snap-shot, even when planned and thought out beforehand according to Keighley's custom—"A Spring Pastoral," "The Bridge" and other works. J. C. Warburg is a force to be reckoned with in British photography. He has, if an uncertain, at any rate a high-class output, which always commands attention. He has a reason for what he does. The Cadbys' work is, as usual, sane, decorative and dainty, and the exhibit would not be representative without their contributions. The "Spider's Web" of Mrs. Cadby and the child-studies of Mr. Cadby are their chief contributions to Dresden.

Eustace Calland is the exact antithesis of most photographers who produce too much; he produces too little. We always want to see more of his work. He sends only two little pictures to this exhibition. Reginald Craigie has always something interesting and, not infrequently, something quite unusual to show. There are pictures of his which are second to none and which will be remembered when many that are talked of now will be forgotten. He was well advised to send "The Bank of England Court." It is probably the finest architectural group that has been produced by photography. Cavendish Morton has a position quite his own in England. Decorative, dainty and convincing, his is a style of work that has no competitors and no imitators over here. He is certainly one of our strong men of today, and he has not joined the extremists. He shows some of his latest and best work. Mr. F. J. Mortimer, who has gained a reputation second to none as the exponent of the sea in storm and calm, has a series of large seascapes. The president of the R. P. S. is not now either a large producer or a large exhibitor, but he sends what is one of his most charming pictures—"Winter Landscape." The photographic world hears little of H. Y. Stimmings and Russell Burchall, but both have done excellent work and are destined to be among the men of the future if they maintain their present gait. Of my own work I must leave it to others to speak. My contributions consist of large multiple gum-prints, all portraits. In size they are the largest in the British section.

AMERICAN PROFESSIONAL WORK

Perhaps the American Professional Section is the strongest exhibit of purely professional work, and the most notable, in many ways, that has ever been organized. It reflects, in the highest degree, the selective skill of Mr. Pirie MacDonald and Mr. Rudolf Dührkoop, the organizers of the section. It is not the work of the mere rank and file of American professionals, but the very pick of the basket, and must certainly be an eye-opener to the world in general as to what the American professional can do when he chooses. It has been remarked by more than one visitor to the exhibition that there is a noticeable sameness and family-likeness in these two hundred and seventy-two professional portraits; they seem turned out in a mould, as if, to keep his patronage, the American photographer did not

dare vary from the prevailing style and character of portrait. Perhaps the style changes from year to year; but it seems to be the laws of the Medes and Persians while it prevails. We in England do not favor retouching so much as is done on the other side, relying more on the softening of focus; and it is interesting to find this method adopted by Mr. E. R. Hutchinson, of Chicago, who aims at a wise restraint and a strong appeal of personality. Mr. Dudley Hoyt has ten portraits of women, well spaced, with excellent tonal rendering of differences of texture and an excellent scheme of lighting. He shows the artistic spirit in a very marked degree, and his work is always dignified and worthy. One of the best readers and translators of character is Mr. Elias Goldensky, who also shows in the amateur section; he knows how to arrange delicate schemes of tone and to suit them to the sitter. Mrs. Gertrude Käsebier's reputation is world-wide and needs no praise to make it greater. She has five frames of distinguished work which principally goes to show a supreme command of her printing-media and that they are her servants and not her masters. Mr. Pirie MacDonald has about twenty-five portraits of men — all closely framed. His magnificent work has hardly received full justice on account of the way his exhibit is spaced. That the work is forceful, strong and individual in a high degree, and that it would be expected from no one else but Mr. Pirie MacDonald, goes without saying. He knows men, he gauges them, hits them off and, so to speak, there they are — the men themselves! Mr. E. B. Core is the Cadby of New York, and he draws one to his child-studies after the manner of the English worker. He shows ten delightful sepia prints of children who seem happy and are free from self-consciousness. Mr. Garo, Boston's society photographer, exhibits a series of rich sepia portraits, mostly women, that are technically superb. The lighting, in particular, is extremely well managed. Very special mention might be made of Strauss, Falk, Edmondson, Tingley and others, did time permit, for there is little work that is not of the highest order and that will not bear careful study. It is not improbable that the visitor will be detained from interest longer in this section than in almost any other, and the professional from other countries will have to acknowledge that his American brother knows what he wants in portraiture and knows how to get it, and that the standard of production is a high one.

THE AMERICAN AMATEUR SECTION

The American Amateur Pictorial work is displayed in an octagonal room at the left of the main entrance, and is set off by a scheme of decoration which is quite pleasing and satisfactory. The simple but artistic furniture, the white settees inviting a leisurely study of the works displayed, the finely-toned carpet and the articles of virtu disposed about the room render the general effect quite charming.

It will be possible, of course, to mention only a few of the pictures in detail. The work of Mr. C. F. Clarke is noticeable for its excellent tones and soft yet effective focus. Mr. J. H. Field gets fine atmosphere into his studies, which are poetic in conception. Mr. F. R. Fraprie has four pictures, of which I prefer a

low-horizon subject with delightful reflections of the barge that sails the water. Mr. Elias Goldensky, who also exhibits in the professional section, sends prints here which will not lower his record. Mr. Wm. T. Knox has a fine marine study, while the Parrish Sisters contribute work which, if somewhat weird, is brimful of excellent quality. Mrs. W. W. Pearce does figure-work equaling some of her fine mother-and-child studies which I have seen elsewhere; and this is saying much. Mr. Wm. H. Zerbe, of "Salon" fame, shows two pictures, "Divine Solitude" and "No Breeze, No Tide," which are equal to anything I have seen from him, and his work is pretty well known on this side of the Atlantic. Gertrude E. Man's work I saw last year in the Royal, where it was much admired. She has at Dresden a picture worthy of her reputation in "The Feast of the Immaculate Conception," reproduced in PHOTO-ERA, October, 1907.

I have heard much of the group of young workers — mostly, I believe, of Buffalo — the members of which were not at first taken seriously by most of their countrymen, but who steadily pressed on, improving each other by mutual criticism and along individual lines, till it was found that a new pictorial force had arisen, which had to be reckoned with. Mr. W. H. Porterfield — one of them — has four pictures equal to the best he has shown — pure landscape with distinct poetical treatment. Edward B. Sides, another of this coterie, has three pictures along romantic lines and of fine quality. Of the work by another member — G. Edwin Keller — my choice would be "Sunlight" and "Wayside Stream." Altogether, the members of the Buffalo contingent give a good account of themselves and, like the other American workers who have been referred to here, greatly enhance the value of this section. While the American work, individually and as a whole, commands admiration by reason of sheer artistic beauty, it is criticized for being too somber and low in tone, whereas the English pictures, made in a country noted for its misty atmosphere, are full of sunshine. The simple reason is that workers, live where they may, seek the novelty of atmospheric conditions prevailing in countries other than their own. 'T is human nature the world over.

The exhibit of the International Society of Artist-Photographers, which assumes to embrace the highest and best of pictorial photography in both hemispheres, holds forth in the first large hall to the left as one enters the main building. There are about one hundred and seventy prints, most of which belong to the Photo-Secession, represented here by Miss Brigman, Coburn, Day, Dyer, Eugene, French, Keiley, Seeley, Steichen, Stieglitz and White. The other members of this exclusive set who have pictures here are Annan, Davison and De Meyer, of England; Demachy, of France, and Kühn and Spitzer, of Austria. The impressiveness of this show is undeniable; but to the astonishment of the Germans, who have been led to regard these productions as the flower of the world's pictorial activity, the work of the independent American pictorialists displays fully as much originality, power, and beauty. It is a revelation that will serve to stimulate interest in these hitherto neglected American workers, whose pictures henceforth will be as welcome in European Salons as any of the most exalted rank.

EDITORIAL

Et Tu, Brute!

WHAT is the matter with the Photo-Secession? Is it true, as has been asserted, that in originality of pictorial invention its members are approaching a decline? In attractiveness of design, but not in the quality of reproduction, the illustrations in the last two or three numbers of its official organ, *Camera Work*, show a noticeable falling-off, although there are many cultivated picture-lovers who declare that the element of true pictorial beauty is lacking in the work of the average Photo-Secessionist. Even Robert Demachy, the distinguished French amateur and also for many years a staunch supporter of the Photo-Secession, has been moved to protest against the latest æsthetic vagaries of this coterie, as seen at the last Salon of the Paris Photo-Club. We quote from M. Demachy's review of this exhibition, which appeared in the *British Journal of Photography* of June 4, 1909:

"Mr. Steichen's style is well known, and his six pictures are excellent examples of his original talent. I inadvertently used the word *followers* just now when I mentioned the relationship between Mr. Steichen and the Photo-Secessionists. The term is ill-chosen; for though Mr. Steichen and the Secessionists now belong to the same creed — that of pure and uncorrected photography — their methods and their results differ. If Mr. Steichen shows manifest personality, the twenty-eight prints that frame his central panel seem to have been printed by the same operator, though they are the children of nine different authors.

"In most of these there is an absolute disregard — or is it contempt? — for those qualities which are considered of paramount importance by artists in other mediums — so absolute, indeed, that some of the pictures require a certain amount of study before it is possible to understand the relative positions of the objects therein suggested. But one notices amongst this representative collection a general and hopeful effort towards originality of composition. Perhaps the effort is too noticeable in some cases; while in others, all important factors have been sacrificed to pure strangeness of arrangement.

"Has the Photo-Secession been influenced by a certain school of painting, whose disciples aim solely at the production of decorative patterns, whose ideal is the Persian-rug design, and which stoops rarely to portraiture because the human frame is too common for its taste? So much so that values and atmosphere are put aside so as to produce absolutely flat patterns, retaining only the projected form of natural objects on one plane. Such methods of rendering nature are far removed from the French conception of art — so far removed that I suppose that my opinion on the subject is unfairly biased. Yet I must say that I prefer the old-time methods used by certain unsophisticated artists who have been dead a long time, it is true, but who have left a name behind them."

Exploiting the Amateur

THE season when the camerist is most actively engaged enriching his collection of pictorial gems has arrived, and with it come, from various sources, requests for the best fruits of his industry. It is an unfortunate circumstance that among those who seek to profit by the pictorial success of the amateur are many who are animated only by sordid motives and who do not hesitate to take improper advantage of his trusting disposition in the matter of prints or negatives. It therefore behooves the amateur to be on his guard against unscrupulous picture-buyers when negotiating for the sale of valuable prints; for, once having played into their hands, the victimized camerist will have little prospect to obtain satisfaction. The number of unscrupulous concerns which solicit prints or negatives of specified subjects from amateurs is quite large, although it has diminished considerably since PHOTO-ERA began its campaign against these photographic frauds. In order to protect the craft against such piratical concerns, PHOTO-ERA has frequently published lists of absolutely trustworthy publications, firms and individuals desiring to obtain prints of certain subjects either through direct purchase or prize-competitions. Some of the concerns which believe in the principle of obtaining something without a *quid pro quo* now refrain from making their wishes known through the press lest their methods be the more easily discovered and the craft warned. They now make a direct, personal and alluring appeal to individual amateurs whose addresses they know how to procure. Nor is this plan so successful as would appear, for many of the workers thus importuned have applied for advice to PHOTO-ERA, which, after a thorough investigation, has deemed it advisable to suggest a method of procedure similar to the one here outlined.

In most cases solicitors of photographs should be treated with circumspection, although one need never distrust such well-known and highly-respected firms as the Eastman Kodak Company, Thomas B. Jeffery and Company and others from whom the amateur is sure to receive an absolutely square deal. When, however, the amateur is solicited by a firm or individual about whom there is the least suspicion, it is recommended that specimen prints, or prints from which the value of a negative is to be determined, be mutilated in such a manner as to make it impossible to reproduce them successfully. This is following a custom adopted by some professional portrait-photographers when submitting proofs to customers of peculiarly resourceful proclivities. Nor is it always safe to submit copyrighted prints; for, sad to relate, there are concerns which do not shrink from reproducing and marketing even these, and the victimized author of a valuable picture will find it difficult, and sometimes impossible, to obtain redress, and the attempt to do so by a process of law is always annoying and expensive. There are cases on record in which the copyright-notice was successfully removed from a print and the latter reproduced and sold. Elsewhere in this issue will be found reference to the matter of copyright, together with an example of a correct and legal copyright-notice.

OUR ILLUSTRATIONS

OUR frontispiece, by Rudolf Eickemeyer, Jr., was inspired by a few simple verses in a book of child's poems by an English poet. Mr. Eickemeyer does not recall the author, but the lines impressed him strangely and he became possessed of a desire to picture it. That he has succeeded in an eminent degree no one will question. The composition is eloquent in poetic feeling and pictorial beauty. Data: Noon; Seed 26 x plate, 8 x 10; $\frac{1}{4}$ second exposure; lens of 14-inch focus devised by Mr. Eickemeyer.

It is a pleasure to be able to present to our readers this month two more superb marines by Wm. Norrie. No photographer in Scotland has, to our knowledge, been so successful in depicting the morning and evening aspects of the sea.

"Moonlight at Sea" is one of those night effects frequently made by daylight when the sun is low, the print being, perhaps, a trifle too light to convey an absolutely true impression. The craft in the foreground is well placed, and its dark bulk, contrasted with the lighter tone and smaller size of its distant echo on the horizon, accentuates aerial perspective. Contrast and interchange of light and dark are well exemplified by the intense path of light just beyond the herring-boat. It should be noticed, however, that this path of light is far from being white paper, and that it is always by juxtaposition of light and dark that the effect of extreme light or dark, as the case may be, is obtained in photography, the same as in painting. An important part of the composition is the sky, which has been handled admirably, the time of exposure having been chosen when the lighter clouds would contrast with the nearer sail, making it seem closer at hand, and its distant echo correspondingly farther away. No data are available.

"Outward Bound" shows greater breadth of treatment, and is another successful example of the many beautiful effects to be had by photographing against the sun. The clouds, again, are an important factor in the composition, but the chief interest is found in the water. Note the beautiful curve of the rocks in the foreground, and the great roller in the middle-distance, which leads toward the little sailing-craft. Follow any prominent line in the picture and it brings the vision nearer to this little sail; even the trend of the clouds is in that direction. All this, however, is largely a matter of good fortune, a seeing eye and judicious choice of the psychological moment; but convincingly to record the pearly lights seen on the water requires the feeling and technique of an artist. That, we believe, Mr. Norrie possesses as far as photography is concerned. Data: October, 9 A.M.; good light; Shew Eclipse lens; $6\frac{1}{2}$ -inch focus, $f/11$; $\frac{2}{5}$ second; Imperial Sovereign plate; pyro-ammonia developer; P. O. P. matt print.

In "A March Day" E. M. Astle has given us another of those beautiful interpretations always so full of subtle atmosphere, delicate tones and long range of gradation. Exquisitely decorative in position and lines, the trees are seen by their sharper definition to be in a nearer plane than the opposite shore, which possesses just the right degree of diffusion. The chief charm of the picture, however, lies in the lighting, characteristic of occasional warm days of early spring. Much of the delicacy of the sunlight on the young birches has inevitably been lost in reproduction, for nothing but an actual photograph can hold this subtle quality. Data: 2 P.M.; sunny; B. & L. Zeiss Anastigmat, $f/11$; $\frac{1}{8}$ second exposure; Seed N. H. Ortho plate; metol-hydro developer; black platinum print.

"A Close Decision." High-speed photograph by R. W. Sears, staff photographer of the *Boston American*. It is not often that a decision rendered by an umpire in a baseball game is so effectually verified by the camera as in this instance, and it is an admirable example of the trustworthiness of the camera in the hands of a capable and honest photographer. The stirring moment caught by the camera was a feature of the opening game in Boston between the Boston and Philadelphia American League teams at Boston, April 21, 1909. Speaker, center fielder of the Boston, is in the act of sliding to the third sack. Baker, third baseman of the Philadelphia nine, receives the ball and retires Speaker, according to the decision of the umpire, although the entire Boston nine and the vast audience rose in a tumult of protest. Photographer Sears is noted for his nerve, coolness and success. He usually takes up a position near the back of third base, and has to keep his eye on the batter, lest he be hit by a foul ball (which happened last year), watch the pitcher, and also the runner at second base trying to steal third. Data: Cooke lens; $f/4.5$; $8\frac{1}{4}$ -inch focus; stop $f/8$; time, April, 3 P.M.; sun behind cloud; Lumière's Sigma plate, $\frac{3}{8}$ -inch slit in focal plane shutter.

"Miss Lena L.," by Dupras and Colas, is the best example of Canadian portraiture we have ever seen. Delicate in tone; graceful in line; truthful in texture; spontaneous in conception, and well nigh perfect in execution, it pleases from every point of view; and the model is so charming that all will admire. The effectiveness of the circular treatment is indisputable. Data: 2 P.M.; plain lighting; Goerz lens; 10-inch focus, used wide open; 3 seconds exposure; Seed plate; pyro-metol developer; Angelo platinum print.

Data regarding the telephotographs on page 73 will be found at the bottom of page 72. These pictures are purely illustrative, and not intended to present any particular artistic effect.

The Monthly Contest

THAT this competition proved to be popular and brought forth some very attractive prints is shown by our reproductions this month. It is unfortunate that more could not have been reproduced, but many were not suitable for grouping. In the purely pictorial field the work of Paul Lewis Anderson ranks among the best our Guild has produced. It is at times bold, forceful and direct; again, as in "The Gray Mists of Dawn," it is soft, restful and impressionistic; but in either case it is always pictorial. The present instance is beautiful in composition, atmosphere and low-tone harmony. The one unfortunate note lies in the straightness and equal spacing of the nearby branches. It is conceivable that these might have been appropriately spaced by attaching fine threads of proper color to the tips of the branches and fastening them to the ground below. These would have been invisible with the diffused focus employed. Data: May, 7 A.M.; intense sun, but hazy; R. R. lens, f/7.5; 3 times filter; Orthonon plate; $\frac{1}{5}$ second exposure; Dianol developer; Autotype carbon prints.

Bolder both in the subject itself, as well as its leading lines, and far less delicate in treatment, is "The Brook," by John Schork; but for what it purports to be it is quite as successful as the first prize-winner. Few, indeed, could have used a camera here to better purpose than did Mr. Schork, yet it must be admitted that this print owes its distinction more to the attractiveness of the scene itself than to its treatment; while Mr. Anderson's picture depends entirely upon an unusually keen sense of the pictorial, and demonstrates more convincingly the possibilities of finding a good composition in more commonplace surroundings. No data are available.

To the New Englander the flat Middle West seems at first wanting in pictorial material, and, of course, the views must inevitably be different from those made in the Eastern States; yet we all love our own locality best, and in every one there are opportunities for making pictorial and characteristic impressions with the camera. An example in point is the third prize-winner, by George Alexander. It is, at once, typical of the country in which it was made, as well as of the early springtime, the latter being due in large measure to the lack of foliage, the barrenness of the scene and the coldness of the wind-clouds overhead. The effect of clouds upon the sentiment of a picture is well worthy of note on the part of every camerist. Data: May, 6 P.M.; cloudy; on account of the high wind seven exposures of $\frac{1}{25}$ second each were given; stop 32; Cramer Inst. Iso plate; pyro developer; enlargement on Monox bromide.

Knowledge is power—if your knowledge is about the right thing. If you are a photographer read PHOTO-ERA and become proficient in all phases of your art and its technique. It means dollars and sense for you.

A Dry-Mounting Hint

EVERY camerist who uses dry-mounting tissue knows how important is the temperature of the heated iron and how difficult it is to form any idea of the actual temperature. If it is too hot the print will be scorched and if not hot enough the tissue does not liquefy. George Bealby makes a suggestion in *The Amateur Photographer and Photographic News* which simplifies this whole matter. Since the temperature of the iron should not fall below 180° Fahr., Mr. Bealby keeps his irons heated by placing them in a tin dish containing about an inch of water, which is kept boiling by a gas-burner below. In this way excessive heat cannot raise the temperature of the irons above 212° Fahr., so that adjustment of the gas-flame is unnecessary and one's whole attention may be given to mounting first with one iron and then another. When lifted from the water the irons become dry instantaneously.

The wages of gin is debt. Moral: Don't give credit to a photographer who uses liquors in excess, and don't be that photographer.

A Developer for Gaslight-Paper

IN the revised edition of the little booklet of the Defender Photo-Supply Co., "The Tipster," is the formula for a new metol-hydro-acetate developer. The formula as given is intended for Defender Argo paper, but any worker may modify it to meet his own requirements.

Expert chemists, after extensive experiments, have found it to be particularly adapted to Argo, and it is used almost exclusively in the Defender Company's operating-room.

METOL-HYDRO-ACETATE DEVELOPER

Water	16 ounces
Metol	15 grains
Hydroquinone	15 "
Sodium sulphite	280 "
" acetate	560 "

Using the above developer, almost any tone can be secured by the addition of other chemicals, as suggested below:

No. 1. For olive-gray tones, add eight minims potassium bromide and fifteen grains hydroquinone to sixteen ounces developer.

No. 2. For gray-olive tones, add eight minims potassium bromide to sixteen ounces developer.

No. 3. For olive tones, add twelve minims potassium bromide to sixteen ounces developer.

No. 4. For deep olive tones, add eight minims potassium bromide and eight grains sodium carbonate to sixteen ounces developer.

No. 5. For brown-olive tones, add eight minims potassium bromide and eight grains metol to sixteen ounces developer.

No. 6. For yellow-olive tones, add eight minims potassium bromide, fifteen grains sodium carbonate, fifteen grains hydroquinone and eight grains metol to sixteen ounces developer.



THE GRAY MISTS OF DAWN
PAUL LEWIS ANDERSON
FIRST PRIZE — THE BROOK IN SPRINGTIME



THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus.

Vacation-Hints

AUGUST is the month of summer holidays. More people choose this month for their outing than any other month in the year, one special reason being that when one returns to work the very hottest part of the season will be over.

The question which often perplexes the amateur who is planning a vacation is whether it is better to take plates or films for his camera. This seems the simplest solution. If one is intending to move about from place to place, then film is the choice; but if one intends stopping in one place, then plates are to be preferred. If one is going where supplies can be easily obtained, then it is not necessary to take a supply of material; but if not, then one should take plenty of plates or films, for the want of a plate is often many times the worth of it.

The chemicals for developing and toning-solutions come either in powder or tabloid form, with full directions for mixing, so that they are not much of a burden, and do not take up much room even if one carries only a suit-case, so it is wiser to carry a supply of these articles. Ready-sensitized post-cards will also be found a welcome addition to one's photographic collection.

Never start away on a trip or on a vacation with an untried camera, nor with sensitive plates with which one is unfamiliar. The photographic results of such an action are apt to be very disappointing. With a camera one understands, and with plates which one has become accustomed to using, one is pretty sure to get pictures worth while.

When away on an outing always try to get pictures out of the ordinary. Old-time trades and vocations still survive in some of the smaller towns and villages, and one should look out for such subjects. Then there are always picturesque characters in every locality, especially among the older people. Quaint bits of architecture, historical sites, or landmarks, unusual interiors, are also subjects to be sought out and photographed.

Use special caution about wasting plates; and when vacation is over, make from the negatives the very best prints possible, and thus have beautiful and valuable souvenirs of a pleasant vacation.

The Blue-Print Process

BLUE-PRINT paper is the simplest, and also — not even excepting the carbon — the most durable of all photographic printing-processes. More blue-print paper is made and sold than any other sort of photographic printing-mediums, this great demand being the immense quantities used by architects, and for certain commercial uses. It is specially convenient for the reproduction of copies of plans, sketches and designs which are made on tracing-paper and used as negatives.

It has become the custom to deride the blue-print; but it has a few staunch adherents who find in this adaptable paper a medium not to be found in other printing-out papers.

Take the matter of the pictorial record of one's photographic work. The blue-print is the cheapest, the easiest and the most satisfactory. The print for record work should be made with an inch of margin at one end and two inches at the other, the narrow margin being for the title and for any points about the print one desires to remember, and the wider end serving for binding prints together in fifties, with the handy clip-binders.

Blue-prints are the most convenient for sending home a pictorial account of one's outings; for no chemicals are required in the finishing of the print — simply washing in clear water and drying. It is an adaptable paper, too, and can be used for menu-cards, programs, posters, and for all sorts of decorative work where blue is a desirable color.

Another special recommendation is its cheapness. If one sensitizes the paper or fabric the amount is trifling for a large quantity of paper. The commercial paper is very inexpensive, costing only ten cents a dozen for the 4 x 5 size. It can not only be bought in all sizes, but also in rolls, a roll ten feet long — over three yards — and twenty-five inches wide costing only \$1.20.

The preparation of the paper is very simple, and any paper — from common writing-paper to the water-color papers and the Japanese rice-papers — may be used for the material, as well as fabrics of silk, linen and cotton. The formula for sensitizing blue-prints has been given in early numbers of PHOTO-ERA, and also in the correspondence column of recent issues. The blue-



THE BROOK

JOHN SCHORK

SECOND PRIZE — THE BROOK IN SPRINGTIME

print sensitizer is made up in two solutions, as follows:

No. 1

Potassium ferricyanide (the red crystals)	1 ounce
Water	8 ounces

No. 2

Ferric ammonium citrate	1 $\frac{3}{4}$ ounces
Water	8 "

When ready to use, mix together equal parts of each solution and sensitize the paper by floating it on the liquid or by applying with a soft brush, going back and forth across the paper until evenly coated. The sensitizing must be done by gas or lamp-light, or in a room dimly lighted. Dry in the dark.

The printing is judged by the bronzing of the shadows. When the shadows are bronzed — that is, have a sort of metallic look — the printing has been carried far enough. Wash in several changes of clear water and then dry. It is said that if the print, after development, is placed in clear water and set in the sun for a few minutes the color will be much brighter.

Within a few years the green ferric ammonium citrate has been substituted for the brown, with the result that the paper prints much quicker and the color is a richer, deeper blue. The proportions are one hundred and ten grains of green ferric ammonium citrate to each ounce of water in one solution; and forty grains of potassium ferricyanide to each ounce of water in the second solution. To use, take equal parts of both solu-

tions. A usable quantity to make up is eight ounces of each. They may be mixed and will keep for some time if stored in the dark, but it is better to mix them as needed.

The color of the blue-print may be changed to sepia, black, lilac, and to a dull green. This gives the amateur opportunity to vary the color of his blue-prints; and as in most cases the materials are inexpensive and the manipulation very easy, the experiments are worth trying.

Black tones may be obtained by first bleaching the print in nitrate of silver and then redeveloping with a ferrous oxalate developer. The nitrate of silver solution is made of thirty-six grains of nitrate of silver to four ounces of water. Place the print in the solution and move it about gently by rocking the tray until the image is well bleached. Wash well and then submit it to the fumes of ammonia for a short time. To do this tack the prints or pin them at the bottom of a wooden box, put some liquid ammonia in a saucer and set the box over it, covering the box with a blanket so that the fumes will not escape. Fume for ten minutes, then develop in a ferrous oxalate developer made after the following formula: No. 1. Dissolve four ounces of oxalate of potash in fifteen ounces of hot water. No. 2. Dissolve four ounces of sulphate of iron in six ounces of water, and to each ounce of the solution add one drop of sulphuric acid. No. 3. Dissolve one ounce of oxalic acid in three and one-half ounces of water.

To use, take five ounces of No. 1; one ounce of No. 2; and one-half ounce of No. 3. Place the moist print in this developer and develop until

a warm brown or sepia is reached. Wash well and dry.

A deeper brown tone is obtained by drying the print and then placing it in a solution of liquid ammonia, using one-half dram of liquid ammonia and five ounces of water. Leave it in this solution until bleached, then place in a bath made of forty-five grains of tannic acid and five ounces of water. This will change the color to a deep brown, and if the shadows are too dull the print may be brightened by applying a coat of artists' fixatif to the print when dry.

A deep green may be obtained by making up a solution of one hundred and fifty grains of borax and five ounces of water. When the borax is dissolved add sulphuric acid drop by drop, stirring the mixture constantly with a glass rod until enough of the acid has been added to begin to redden blue litmus-paper. Next add a few drops of a ten per cent solution of ammonia to neutralize the acid, which is determined by its turning the red color again to blue. When this occurs add twenty grains of powdered catachu, dissolve and filter the solution. Tone the print until it has turned to the desired shade of green.

Lilac and purplish tones may be obtained by placing the print in a thirty-five per cent solution of sulphocyanide of ammonium to which a little acetate of lead has been added. These lilac tones are not strictly permanent, for they are affected by the light and by dampness.

A blue-print may be brightened in tone by immersion in a 3% solution of oxalic acid.

Clear negatives with good detail are the best for blue-prints, a contrast negative giving really the best prints on this paper. Development should take place as soon as possible after the print is made, as the paper does not improve with keeping after the print has been made. If the water in which the print is developed is strong in alkali a few drops of citric acid added to the bath will obviate any bad results.

Summer Charities

THOUGH August is really the "play-month" of the year, yet even the vacationist does not spend all of his time idling about doing nothing. It is a very commendable fashion at summer resorts for the visitors to get up entertainments for the benefit of some one or other of the local charities. Now nothing could be more delightful in every way than a "Delft Bazar," and the Delft could be the humble blue-print used in countless numbers of ways. Fans, lampshades, hand-screens, blue and white transparencies, blotters, paper-weights, fancy boxes, jewel-cases, could be made and decorated with blue-prints, while marines, waterscapes, boats and local scenes could be made into attractive folders, or framed in appropriate frames, or made and mounted as single pictures, and one should not forget the picture postal. The hangings of the bazar would of course be of blue and white bunting, and three or four enthusiastic amateurs would succeed in evolving a most unique entertainment, and one sure to bring fine financial returns.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

Prizes

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

Subjects for Competition

July — "Outdoor Pastimes." Closes August 31.

August — "At the Seashore." Closes September 30.

September — "General." Closes October 31.

October — "Vacation-Scenes." Closes November 30.

November — "Glimpses of Foreign Lands." Closes December 31.

December — "Self-Portraits." Closes January 31.



THIRD PRIZE
THE BROOK
IN SPRINGTIME

AN APRIL STORM

GEORGE ALEXANDER

1910

- January — "My Favorite Photograph." Closes February 28.
 February — "Decorative Treatment of Trees." Closes March 31.
 March — "The Seasons." Closes April 30.
 April — "Downhill Perspective." Closes May 31.
 May — "Sunlight and Shadow." Closes June 30.
 June — "Landscapes with Figures." Closes July 31.
 July — "Marines." Closes August 31.
 August — "In the Country." Closes September 30.
 September — "General." Closes October 31.
 October — "Scenic Beauties of America." Closes November 30.
 November — "Group Portraits." Closes December 31.

Awards—The Brook in Springtime

First Prize: Paul Lewis Anderson.

Second Prize: John Schork.

Third Prize: George Alexander.

Honorable Mention: A. B. Hargett, M. A. Yauch, Dr. Malcolm D. Miller, Leonard L. Cortright, Claude B. Vail, J. J. Kellison, Louis R. Murray, Sam Charles, F. E. Bronson, Sin-saburo Niwa.

Meritorious work was also submitted by A. R. Allen, Dr. M. H. Bell, C. Burnham, H. C. Bancroft, Jr., Mrs. Alice L. Becht, W. L. Crouch, B. V. Constantinov, Lewis P. Craig, G. L. Embrey, L. C. Hogan, Frank D. W. Loveland, Dr. Walter J. McFeat, Grace E. Mounts, Chas. A. Muller, Robert M. Storms, G. Harrison Truman, Frances H. Toms, A. H. T. Williams, John J. Wing, F. J. Warren, Harry D. Wil-liar.

HONORABLE MENTION
THE BROOK
IN SPRINGTIME



BASKET-FISHING IN JAPAN

SINSABURO NIWA

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

6. H. E. LEWIS.—To obtain a gloss on picture post-cards, use a heavy ferrotype plate; see that it is perfectly clean, then swab it over with a solution of paraffin and benzine—ten grains of paraffin in one ounce of benzine. Rub the plate with a soft cloth, take the prints from the water, lay them face down on the ferrotype plate and squeeze them to it with a rubber squeegee. Ab-

sorb the superfluous moisture with clean blotting-paper. When the prints are dry they will peel from the plate with a glossy finish. Take care that the plate is not put in a warm place; otherwise, the gelatine will soften and stick to it. Clean the plate and swab with the paraffin between each batch of prints.

THOMAS BRADY.—Yes, there are several makes of copying-cameras on the market. If, however, your camera-bellows has a long enough draw you can copy with your own lens without going to the expense of buying a camera specially for copying. If, however, you intend doing much copying, the camera made specially for that purpose is, of course, the most convenient.

GEORGE N. COMLY AND OTHERS.—In sending prints to the monthly competitions they should be finished in the most artistic manner one is capable of doing. Glossy prints are better

for reproduction, but are not artistic; and as artistic merit is one of the points on which pictures are judged, the finish of the print, as well as subject and treatment, is taken into consideration.

H. H. D.— Your request for the proper toning and treatment of blue-prints is answered in the article in this number. As many other Guild members had asked for the same information, and as it was too long to be incorporated in "Answers to Correspondents," a special article has been written. No, the blue-print does not reproduce well. It is debarred from the competitions for that very reason.

L. D. R.— The glycin developer which you ask about would not develop plates in an hour. There was evidently a mistake in the printing of the directions. It would require from eight to ten hours to develop the plate; and as glycin does not stain, there would be no harm in leaving the plates in the developer for that length of time.

W. R. L. D.— You will find the W. D. Platinum made by the Eastman Company of Rochester, N. Y., the paper which will meet your requirements of a water-developed paper in black-and-white tones. This paper does not keep very long, so it would be wiser for you to have your dealer order direct from the makers, so as to ensure fresh paper. The tones resemble those of ordinary platinum, but the paper is very much cheaper.

JANE R. D.— The greenish tone of your gaslight prints is doubtless due to too much potassium bromide in the developer. Experiment and find the time of exposure for normal development. Then you need not use the restrainer to hold back the image, nor need you prolong the development to bring out detail. A few experiments watched and timed carefully will save you much vexation in gaslight printing. Have the negative always at a uniform distance from the light, and you will thus get uniform results. When you have ascertained the time necessary for printing a negative make a note of it on the outside of the negative envelope as a guide to future printings.

BERTHA B.— To intensify a carbon print dip it in a solution of permanganate of potash, using twenty grains of the potash to an ounce of water. Wash and dry, and if the print is still too weak, repeat the process.

EDWARD S. B.— A clearing-bath for platinum paper is made of one ounce of hydrochloric acid to sixty ounces of water. Get the chemically pure (C. P.) acid, which is perfectly white. If of a yellow tinge it is not pure and may injure the prints.

CHARLES M.— An ink for writing or labeling lantern-slides may be made by dissolving in gum-arabic water zinc white such as is used by artists. The gum-arabic water should contain about forty grains of the gum arabic to an ounce of water. Add the water to the paint, rubbing it smooth with a knife or flat stick, until of the right consistency. It should be thick, but not too

thick to flow from the pen. A little experimenting will give you the proper proportions.

D. L. T.— To remove intensification from a plate soak the plate in a hypo solution, one ounce of hypo to four ounces of water. Wash well, and the intensification can be repeated if desired.

S. F. HARD.— An orthoscopic lens is a lens which reproduces lines straight. The word means the same as "rectilinear," for which in this case it is evidently used. Yes, you may send enlargements from small negatives for the monthly Guild competitions.

HAROLD S.— To secure an international copyright one must comply with the laws of the "country of origin," that country being the one where the idea originated, or the country of first publication.

T. G. L.— To clean your soiled platinum prints made on rough paper, dissolve a teaspoonful of powdered alum in one-half pint of hot water. When cooled, add enough of this solution to a quantity of flour until you have a half solid paste, but not too stiff. With a soft brush apply this paste to the print, brushing the mixture well into the paper, then wash off under the water-tap with a gentle stream of water. The paste will carry off the dirt on the print and it will be as clean as when first made.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"SUNSHINE AND SHADOW," B. C. L.— This picture shows in the foreground an archway through which are seen glimpses of a sunny court. The foreground is dark, owing to the heavy shadows from the building, but the glimpse into the court gives the necessary high-lights and life to the picture. The point of view in this picture was not well chosen. A pillar cuts off the curve of the archway at the left and makes the opening look as if unfinished, and almost conveys the impression that the part of the arch hidden by the pillar is without support. This is a difficult subject, and in order to get a good effect the time of making the picture should be chosen when the strongest light falls on the rough stone and gives a little detail, instead of, as now, making it simply a black outline. The scene in the court is interesting, as it shows a fountain and two or three children playing near.

"NO THOROUGHFARE," H. G. S.— This picture is very aptly named, for there is certainly no thoroughfare through the tangled mass of bush and briars and young saplings which make



A FEW HONORABLE MENTION PRINTS — THE BROOK IN SPRINGTIME

From Left to Right: "The Sluggish Brook," Claude B. Vail; "The Brook in Springtime," M. A. Yauck; "Rice Creek," Leonard L. Cortright; "Springtime," A. B. Hargett; "In the Glorious Springtime," J. J. Kellison; "The Brook — Arnold Arboretum," Malcolm D. Miller, M.D.; "Winding Brook," Louis R. Murray.

up this picture. This might do for a puzzle picture, but the subject could never by any stretch of the imagination be made to convey any idea of artistic merit. The lines are specially distracting, and the eye wanders here and there seeking for a spot on which to rest, but finding none. Now, doubtless, there was something attractive about this locality, with its varied tints of green in the different shrubs and plants, and the browns and reds of the stems and stalks, but translated into black and white it seems without form, and void. Many pictures of similar character come to the editor's table, and the advice always given is: "When tempted to waste a plate on such a subject — don't!"

"A PICTURESQUE CORNER," M. R. E.— This is a charming scene showing a glimpse of a stream of water, the banks in the foreground fringed with tall rushes and swamp grasses, among them stalks of thoroughwort in blossom. On the opposite bank, which slopes down in a gentle incline to the water, stands a tall tree, its branches half dead and sharply defined against the sky. This seems to be the principal object in the picture, for the lines lead up to it, though the tree itself is somewhat in the middle-distance. At the left of the picture the stream curves away and is lost to view behind a thick growth of shrubbery. This is one of the most artistic bits

of landscape work which has been sent in for criticism for some time. The sky is specially well managed and is full of soft clouds with delicate shadows. There are no strong highlights nor dense shadows in the picture, and the half-tones melt into each other almost imperceptibly.

"STUDY OF A HEAD," C. S. O.— This is a picture of the head of a young woman, with a filmy sort of material like chiffon wound many times about it, one end brought down and tossed over the shoulder. This print is from an excellent negative, for all the detail, while distinct, is very soft and pleasing, but the picture itself is not of special interest. One reason is that the face has not that delicacy of feature which would accord with the white, filmy draperies wound about it. It would be more appropriate for the subject to be garbed in some material with long, flowing lines — a study which would show the figure, rather than only the head. The hair, what is seen of it, is very beautiful, and, loosely arranged, would be very artistic. The curls and frizzes that are seen at one side are inharmonious with the rather severe countenance. The editor would like to see this same subject portrayed in the way suggested. There seems to be an excellent opportunity for an interesting portrait.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
Anso Film, N. C. and Vidil	Hammer Extra Fast	Class 4
Cramer Crown	Hammer Extra Fast Ortho	Stanley Commercial
Cramer Crown Non-Halation	Hammer Non-Halation	Class 5
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Cramer Commercial
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Plain
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Ortho
Cramer Trichromatic	Seed L. Ortho	Defender Ortho Slow
Defender King	Seed Non-Halation Ortho	Hammer Slow
Defender Ortho Inst.	Standard Extra	Hammer Slow Ortho
Eastman N. C. Film	Standard Orthonon	Class 8
Ensign Film	Class 1 1/2	Cramer Slow Iso
Hammer Special Extra Fast	Lumière Ortho A	Cramer Slow Iso Non-Halation
Imperial Special Sensitive	Lumière Ortho B	Class 12
Imperial Orthochrome Special Sensitive	Lumière Panchro C	Defender Queen
Kodoid	Class 2	Seed Process
Magnet	Cramer Medium Iso	Class 100
Premo Film Pack	Cramer Medium Iso Non-Halation	Lumière Autochrome
Seed Gilt Edge 27		Lumière Red Label Slow
Standard Imperial Portrait		
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For August

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of August on any fine day between 10 A.M. and 2 P.M. when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8 is used; also from 8 to 9 A.M. and 3 to 4 P.M. Treble it when the light is rather dull, and from 7 to 8 A.M. and 4 to 5 P.M. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. From 9 to 10 A.M. and 2 to 3 P.M. increase the exposure one-fourth. From 6 to 7 A.M. and 5 to 6 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class ½	Class 1	Class 1¼	Class 1½	Class 2	Class 2½	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds	1/1280	1/640	1/512	1/400	1/320	1/256	1/160	1/128	1/100	1/80	1/50	1/6
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds	1/640	1/320	1/256	1/200	1/160	1/128	1/80	1/64	1/50	1/40	1/25	1/3
Open landscapes without foreground; open beach, harbor and shipping- scenes; yachts under sail; very light- colored objects; studies of dark clouds	1/320	1/160	1/128	1/100	1/80	1/64	1/40	1/32	1/25	1/20	1/12	2/3
Average landscapes with light fore- ground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes	1/160	1/80	1/64	1/50	1/40	1/32	1/20	1/16	1/12	1/10	1/6	1/3
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away	1/80	1/40	1/32	1/25	1/20	1/16	1/10	1/8	1/6	1/5	1/3	2/3
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark ob- jects; groups outdoors	1/40	1/20	1/16	1/12	1/10	1/8	1/5	1/4	1/3	2/5	3/5	5/3
Portraits outdoors in the shade; very dark near objects	1/20	1/10	1/8	1/6	1/5	1/4	2/5	1/2	3/5	4/5	1 1/5	11
Badly-lighted river-banks, ravines, glades and under the trees	1/10	1/5	1/4	1/3	2/5	1/2	4/5	1	1 1/5	1 3/5	2 2/5	21
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	3/10	3/5	3/4	1	1 1/5	1 1/2	2 2/5	3	3 3/5	4 4/5	7 1/5	64

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

A Few Hot-Weather Tips

SUMMER is the time when most photographs are made by amateurs, yet it is the time when development and the other processes give one the most trouble. This is, of course, due to the prevailing high temperature not only of the air, but of the water in midsummer. I think I am safe in assuming that most amateurs these days make use of tank-development, particularly if films are used. In this they are wise. Excellent developers may now be had in packages ready to be dissolved in the proper quantity of water. By adopting this method of making fresh solutions as needed it is an easy matter to use part ice-water and part tap-water, and thus adjust the temperature properly. A warm developer is likely to cause frilling, and to soften the emulsion so badly that it may unavoidably become scratched while washing. A thermometer is the photographer's best guide in summer, and no work should be attempted without its affirmative counsel.

A tank full of developer at sixty or sixty-five degrees will not warm greatly in the twenty minutes required for its use if kept in a fairly cool place. If a good breeze can be found through the house, that is the place in which to work. Better still, wait until evening, when it is cooler everywhere. Amateurs can also, as a rule, wait for a rainy day during which to develop, thus avoiding excessive heat; and it is worth while to do so.

It is well to test the temperature of the developer after use as a guide to future work. If it has warmed five degrees in twenty minutes some further means of cooling it should be adopted in future. An earthen jar with a cover, which may be filled with water the same temperature as the developer, is a convenience. In this the tank may be immersed and covered. Here it is protected from the outside heat by the earthenware and the water, which is now so great in volume that it cools very slowly.

Those who must use dark-rooms should give attention to the matter of ventilation. Light-proof openings should be provided for an intake of cool air near the floor and an outlet of hot air near the ceiling. If electricity is provided in the house an electric fan can be used to good purpose. Nothing will clear and cool the atmosphere so effectively as a fan placed in a direct line between the inlet and outlet openings. It will also be of great service in drying negatives quickly.

Users of dark-rooms will do well to choose stormy days and evenings for their work.

With the latest improved plates and films frilling is not often a source of trouble, if the solutions can be kept fairly cool. If they cannot it is well to adopt some developing-agent such as amidol, which requires no alkali, as it is that constituent in the usual formula which aids frilling.

The developer, fixing-bath and wash-water should be kept within two or three degrees of being alike. Differences of temperature cause frilling. This danger, however, is greatly diminished by the use of formalin and an acid salt in the fixing-bath. One ounce each of formalin and potassium metabisulphite added to a gallon of the usual 20% hypo furnishes an excellent summer fixing-bath for plates, films, gaslight and bromide papers. This solution, like the developer, can be kept cool by immersing the fixing-box in a jar of cool water brought to the right temperature with ice. Formalin also facilitates rapid drying, which is important if streaks are to be avoided. Always dry negatives in a cool, shady place. A breeze, natural or from an electric fan, is an advantage.

Water from city mains is usually rather cool if allowed to run for some time, and, even though a little warmer than the chemical solutions, will probably do no harm while washing negatives if they have been hardened with formalin.

A Fixing-Bath for the Tropics

DIEGO F. DE LA PEÑA, of Tlacotalpan, Mexico, one of the most successful photographers in our sister republic, sends us the following formula, which he states has been very valuable in his practice, rendering the film of plates very hard and avoiding all hot-weather troubles. Its use has been confined almost wholly to Seed plates, but there is every reason to suppose that the bath should prove equally effective with other brands.

A

Water	1,500 c. c.
Hypo	500 grams

B

Water	500 c. c.
Sodium bisulphite, dry	25 to 30 grams
Chrome alum	25 to 30 "

The amount of bisulphite and alum varies with the weather conditions.

Pour B into A, stirring at the same time.

Control with Gaslight Paper

IN a recent issue of *Photo-Notes* there appeared a valuable article by T. H. Greenall describing methods of control in printing and developing gaslight papers, which render it unnecessary to waste a single print so long as under-exposure is avoided. By his method of tentative development widely varying exposures produce almost identical results, except for color, which ranges from warm black to sepia, in this respect being suggestive of the new Ensyna paper. Moreover, these colors are for most subjects more pleasing than the cold black of ordinary development. Thus it will be seen that great latitude is permitted in exposure, with the assurance of good gradation in the high-lights and pleasing color and clearness in the shadows.

"Having roughly sorted my negatives into thin, medium and dense, I expose a batch of six at once, allowing considerably more exposure than the same would require to yield a black print in the ordinary way. Forty to sixty seconds by incandescent gas at ten inches is about right for average negatives, dense negatives having longer; but the exact exposure is unimportant unless a particularly warm or cold color is specially wanted. As an example I made four prints of the same negative on 'Rotox' post-cards, giving twenty seconds, forty seconds, sixty seconds, and ninety seconds respectively, at ten inches from an incandescent gas-flame, and there is very little difference in color, while the gradation and density are practically alike in all. An exposure of three minutes would have given warm sepia; that is the only difference.

"As the prints are exposed they are placed in the following solution at normal temperature (60° to 65° F.):

Pyrocatechin	2 grains
Hydroquinone	2 "
Sodium sulphite	20 "
Citric acid	2 "
Potassium bromide	1 grain
Potassium carbonate	20 grains
Water	6 ounces

In my own practice, when I have many prints to make I dilute this further and place the prints upright in the diluted developer in a tank. After two or three minutes in the concentrated, or ten or fifteen minutes in the tank, developer, I examine the prints as regards their lighter tones. A print which already looks pinky all over must be left to finish out in the restrained developer, as it has had long exposure, and will give a warm-colored print of good gradation if left until it appears very strong and rich before fixing. But the majority of the prints should show either nothing at all, or a pinky deposit in the shadows only, after the above time in the restrained developer; and these are to be taken out singly as the shadow detail appears, rinsed under the tap back and forth for a few seconds, and finished in the following eikonogen solution. This, it will be observed, contains no alkali, and it will bring up

the high-lights even when the exposure has been one-fifth or one-tenth that required for a sepia print; at the same time, it will not block up the shadows:

Eikonogen	10 grains
Sodium sulphite	60 "
Water	2 ounces

This solution may be used repeatedly, provided the prints are always rinsed as they are transferred to it. As to the proper moment to make the transfer, the general rule is to leave the prints to gain some shadow detail in the restrained developer, and use the eikonogen for finishing off; but a print from a contrasty negative should be changed earlier than one from a flat negative, which should be left a longer time in the restrained developer to gain increased contrast.

"The eikonogen alone would give an extremely soft and thin result, while the restrained developer alone would give either nothing, or 'soot and whitewash,' except in the case of those long exposures already referred to. Fixing is in the usual acid fixing-bath, and it is well to bear in mind that blacks and cool sepias do not lose as much in fixing as do the warm sepias before mentioned.

"Finally, should it be desired to have 'red-chalk' prints, it is necessary only to give long exposure and use the restrained developer with a little extra bromide. The eikonogen may be used to correct errors in exposure in this case also; therefore no print need be wasted — unless, of course, the negatives are hopelessly at fault to begin with."

Dry-Plates vs. Gas-Mantles

NOT long ago, states the *Galesburg Mail*, a New York photographer learned to his sorrow that the gas-mantle emits a ray. He had stored away a large number of plates in a dark place and inadvertently left a gas-mantle near them. There they remained for a month, and when the photographer took them out he found that all were fogged. The mantle contained thorium, a radio-active substance which penetrates a cardboard plate-box as easily as it goes through glass.

Restoring Cracked Negatives

CHARLES MACNAMARA describes, in *The Amateur Photographer* for May 25, 1909, a method of remedying a cracked negative which is very simple. It applies only to negatives which have one single, clean crack across some portion of them. When such negatives are held at right angles to the axis of the eye and in the right light the crack practically disappears. Mr. Macnamara notes this exact position in a soft, diffused light, and then makes there a transparency by contact. Little, if any, sign of the crack will be seen in this if the proper angle has been secured. Should any trace remain it will be obliterated in the negative which must then be made by contact or enlargement from the positive before prints may be taken.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

May 18, 1909

922,254. PORTABLE DARK-ROOM FOR PHOTOGRAPHIC PURPOSES. CHRISTIAN BURR and HENRY F. THOMAS, Natrona, Penn.

A compact folding dark-room for loading holders, developing plates and printing. The usual ruby-glass window and arm-holes are provided, as well as a hood to cover the head and shade the window from too bright light. The chief feature of the apparatus consists of the four folding legs which permit of its being set up anywhere at the right height for use.

922,302. KINETOGRAPHIC APPARATUS. CLAUDE ANTOINE LUMIÈRE, Paris, France.

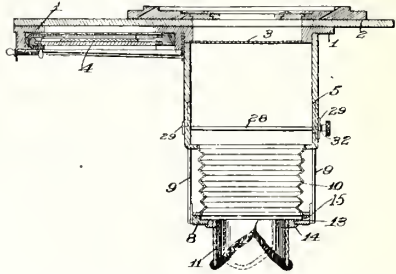
In the projection of kinematographic pictures the time required to close the shutter and bring the next section of film into place causes a period during which the screen is not illuminated. This recurring in rapid succession causes flicker and tires the eyes. The present invention is intended to eliminate these obscure periods, ensuring constant and equal illumination at all times. The same type of apparatus as is used for projection can also be employed for making the original exposures, and, as the usual number of images photographed per second can be doubled, the movements of figures and other objects will be much more natural. The means employed for obtaining these results consists in arranging the successive pictures on two films unwinding parallelly or arranged alternately on the two sides of a wide band of film. Two projection-lenses and shutters are used, the latter being combined and regulated in such a manner that the image is taken alternately first in one series and then the other, a picture in one series being displaced by the height of a picture while a picture in the other series is being projected. As one shutter begins to mask its objective the other shutter begins to uncover its objective, so that the masked area of one is always equal to the exposed area of the other. The screen thus receives a constant quantity of light corresponding to the full aperture of one objective. During a very short period the picture projected is composed of variable elements of two successive images illuminated through a portion of their respective objectives; but by reason of the rapidity of the shutters the connection between the two partial images is hardly perceptible, and the two successive images, taken at intervals of time twice as close together as in the ordinary processes, present very slight differences.

922,356. PHOTOGRAPHIC PLATE-HOLDER. OTHNIEL H. TALBOTT, Eldorado Springs, Mo.

An automatic device for centering plates within a holder. It consists of small metal jaws movable back and forth in guideways on the back of the holder, the jaws engaging both sides and ends of the plates and being drawn together from opposite sides by spiral springs. As these springs tend to hold the jaws in their innermost positions, the plate is automatically centered in the holder with equal spaces at the sides both longitudinally and transversely.

922,411. FOCUSING-ATTACHMENT FOR CAMERAS. WM. F. FOLMER. Assignor by mesne assignments to Eastman Kodak Company, Rochester, N. Y.

The top-plan sectional drawing shows the device to be a focusing-hood attached to the back of portrait-cameras, thus furnishing a convenient substitute for the troublesome focusing-cloth. The bellows 10 enables the sight-opening to be racked to proper distance from the ground-glass screen



3 to suit the photographer's eyes. The portrait-attachment to which the hood is applied embodies a horizontally adjustable slide 1, mounted in ways 2 on the camera-back and provided at one side with a focusing-screen 3 and at the other side with a plate-holder 4, the screen and holder being adapted to be brought alternately into the field of the lens by adjustment of the slide 1.

May 25, 1909

922,743. AUTOMATIC LIGHT-SHIELD FOR MOVING-PICTURE MACHINES. DALLAS C. WOODWORTH, Chicago, Ill.

In the ordinary moving-picture machine the film runs in the film form a loop between the feed-sprocket and guide-roller above the projection-aperture. Should the free feeding of the film be interrupted the loop would enlarge rapidly. This fact is utilized in this patent by arranging a shutter which will be closed by the enlargement of the loop, thus closing the light-aperture and preventing the intense heat of the lamp from igniting the stationary film.

922,908. PHOTOGRAPHIC DRY-PLATE. LOUIS HUSSON, Philadelphia, Penn.

The invention relates to the preparation of sensitive plates adapted to print in different colors, and its object is to render the plates more sensitive to particular colors with the addition of certain dry-colors without the employment of color-filters as heretofore. An ordinary orthochromatic plate is coated first with a repellent made of wax, spermaceti, paraffin, stearic acid or the like, dissolved in a volatile liquid such as benzol, benzole or ether. This coating prevents the color-solution, to be applied later, from mixing with the emulsion of the plate. When the coating is dry it is polished with a chamois-skin and then coated with a col-

oring-solution appropriate to the deepness of the color desired on the plate, the solution being composed of coloring-matter dissolved in alcohol, ether, acetone or other volatile liquid, with the addition of glucose or glycerin to increase its body. As this solution dries two distinct coatings are produced, the resultant plate permitting a perfect action of light through to the emulsion and being adapted to make negatives for three-color half-tones on copper, to transfer to stone for lithographs or to make colortypes.

923,019. COLOR-PHOTOGRAPHY. EDGAR CLIFTON, Enfield, England.

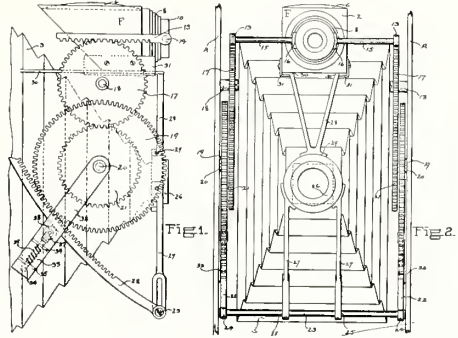
A two, three or four-color method of color-photography in which the assemblage of the single elements produces the colors of nature when mounted together to form a transparency or a print to be viewed by reflected light. It consists in preparing three carbon transparencies in color, superimposing them temporarily to constitute the heliochrome, adjusting the combined effect by modifying any of the color-records with suitable dyes, as suggested by inspection, and finally registering all the color-elements in contact. In the procedure itself there is practically nothing new, the chief feature of the patent relating to the method of temporarily constituting in register and viewing the finished heliochrome so as to determine what modifications, if any, are to be made in order to produce true color-effect. The single carbon transparencies are arranged one over the other in a composite frame consisting of a sufficient number of carriers provided with means for bringing all into exact register. Since the effect must be tried while the transparencies are still wet, they cannot be brought into contact, and the spaces between them as well as the thickness of the glass on which they lie make it necessary to view the transparencies by the use of a special device. This consists of a telescope adjusted at a convenient distance. In the telescopic axis are interposed reflectors for shortening or folding the range, while an eyepiece of the diagonal type is located near the registering-frame so that the adjusting-handles will be convenient to the operator.

923,030. PHOTOGRAPHY. FRANK W. DONISTHORPE, Bath, England.

The method consists in rendering portions of a photographic negative unsaturable to aqueous dyes by loading the more aqueous parts of the negative with pigmentary matter, soaking the negative in an aqueous dye and then bringing the negative into contact with a gelatine surface. The negative to be printed is immersed for ten minutes in what is practically a vanadium toning-bath. This intensifies it a little and turns it to a bluish green. In so doing a deposit is made on the image which must be absorbed by the gelatine. This hardens or blocks up the gelatine and decreases its power to absorb moisture in proportion to the opacity of the negative in its various parts. The plate is then washed and immersed for ten minutes in a dye solution of the desired color, which is absorbed considerably by the gelatine which has been toned but little, less where there has been more toning and so on in proportion. After rinsing in cold water the plate is printed from by contact with gelatine-coated paper previously soaked in cold water for about a minute. Ten minutes' contact is sufficient, and the paper may then be stripped from the negative, and the paper then bears a positive impression in dye from the negative. The latter may be redyed and used over and over again, the redyeing taking only about three minutes. Detailed description in PHOTO-ERA for August, 1908.

923,173. CAMERA. AUGUSTUS M. HENERY, New York City.

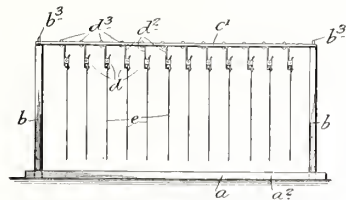
This invention aims to provide intermediate means adapted to create a continuous focal accord, under a series of actuations, between the camera proper and the view-finder, thus enabling the operator to see in the view-finder, during exposure, the scene being received within the camera, and to



determine whether it be in focus. In use, the lens-case 26 is pulled forward, thus revolving the gear 19 along the rack 22. The gear 21 also turns with it, so that the gear 17 and rack 13 are moved at the same time, so that the focus of the finder is the same as that of the camera. Once adjusted in focal accord, by providing gears of proper size, the relation will be permanent and exactly accurate.

923,481. DEVICE FOR DRYING PHOTOGRAPHIC PRINTS. ARTHUR M. BANKS, Brooklyn, N. Y.

An adjustable frame for drying films of different widths. The side elevation shows the arrangement of clips *d* fastened to the bar *C*¹ by the pins *b*³, which are received by



holes in the bar. Two of these bars, one at each side of the film, are used, and, as there are several spaced pins *b*³ across the upright *b*, the distance between the bars may be adjusted to any width of film.

923,511. CHECKING-APPARATUS FOR SYNCHRONOUSLY RUNNING KINEMATOGRAPHS AND TALKING-MACHINES. JULES GREENBAUM, Berlin, Germany.

An electrically-operated device for synchronizing the facial movements in a kinematograph picture with the corresponding conversation from a talking-machine. A disk carrying a contact-point revolves with the main shaft of the

June 8, 1909

923,827. CAMERA. WM. F. FOLMER, Assignor to Eastman Kodak Co., Rochester, N. Y.

A focal plane camera of the reflecting-type much like those now in use, except for minor details of construction. It may be built for plates, or for films as shown in the diagram.

kinematograph and another similar disk revolves with the main shaft of the talking-machine. Against these disks press sliding brushes which close two separate circuits once each revolution of the shafts as the contact-points are reached. Each electric circuit excites an electro-magnet to the armature of which is attached a pawl which acts upon an adjacent ratchet-wheel much like the escapement of a clock. In this way both ratchet-wheels are revolved by the repeated excitation of the respective magnets, and, being geared to concentric shafts, one solid and another tubular, on which are attached pointers like the hands of a clock, the hands also revolve. Thus, one pointer indicates the speed of the talking-machine; the other, that of the kinematograph. Both move around a dial step by step; if they keep exact pace one above the other the machines are operating in exact synchronism; but when one lags behind, its speed must be increased or the speed of the other decreased. Electric lamps of different colors are also provided, one of which burns when the two apparatuses are working synchronously, while another commences to glow and the first is extinguished if the kinematograph runs too fast, and still another commences glowing while the second lamp goes out if the talking-machine runs faster than the kinematograph.

923,542. PHOTOGRAPHIC LIGHT-DIFFUSING APPARATUS. N. LOSEY, Indianapolis, Ind.

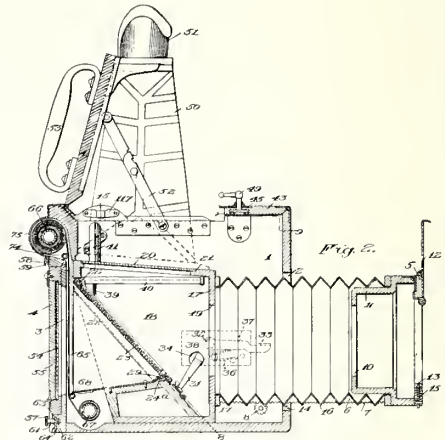
A compact folding device for reflecting and diffusing the strong light of an arc-lamp so that the subject may be enveloped in soft yet actinic light without strong shadows being cast as with direct artificial light. The standard is high enough so that the lamp may be hung through an opening in the top of an inclined umbrella fastened to the standard slightly higher than the subject. A reflector throws the light back within the umbrella, from whence it is again reflected upon the subject.

923,589. MANUFACTURE OF FILMS FOR PHOTOGRAPHIC PURPOSES. J. H. SMITH, Zürich, Switzerland.

The process consists in coating upon an appropriate smooth support a gelatin solution and, after drying, coating upon this again a solution of nitro-cellulose. A sensitive photographic emulsion is coated upon the dried nitro-cellulose surface, and, after the emulsion is dried, the triple film is stripped from its support. A second film is prepared in the same manner, omitting, however, the coating of the sensitive emulsion, and this is also stripped from its support. The plain gelatin surfaces of the two component films are then brought into contact and squeegeed together in a moist condition, yielding a film composed of a top layer of sensitive photographic emulsion, then a layer of gelatin, next two layers of nitro-cellulose and finally a bottom layer of gelatin. Other modified methods of manufacture are indicated, but the results are the same.

923,669. DEVELOPING-TANK. JOHN GOLDSTON LAVENDER, New York City. Assignor to George Murphy, Inc., New York City.

The tank is much like the ordinary type, except that the rack for plates is made in two extensible halves, so that plates of any size may be accommodated, up to the capacity of the tank. Another feature is that the funnel, through which the developer is poured, is trapped at the bottom to prevent admission of light, thus making it possible to develop in daylight after the plates have been transferred to the tank in a dark-room or changing bag.



The locking-device 49 is located near to the handle 53 when the cover is closed, so that should the operator desire suddenly to make a snap-shot, his thumb can conveniently reach the release, whereupon the camera will drop from the cover and its own weight will operate the focusing-hood to its expanded position.

924,089. REFLECTOGRAPH. MARINO MONACO, Stockton, Cal.

By means of a flexible ring of rope or rubber hose laid on the floor and a sheet of rubber cloth placed over this a pool is formed which may be filled with water and used in a studio in connection with suitable scenery to produce the effect of outdoor water-scenes, naturalness and the reflections of persons in the water being the chief advantages.

924,147. CAMERA. GEORGE W. CURTISS, Kansas City, Mo.

This is a camera for exposing kinematograph films, so constructed as to cause a continuous forward feed of the film-web from the upper reel to the tension-case in line with the exposure-opening, the parts being so positioned as to allow a space in which a portion of the web may rest before being drawn into the case. While the film is fed continuously, it is withdrawn intermittently in order that the film may remain stationary before the exposure-opening during the passing of the shutter-opening across it.

924,465. PHOTOGRAPHIC APPARATUS. HEINRICH HÜBSCHER, New York City.

A clock-work camera-attachment whereby the photographer may take either an instantaneous or time exposure of himself or other objects. From one to four minutes' time may be allowed, by the setting of a dial, for the photographer to pose in the view; an alarm gives a warning just before the shutter opens and continues during the exposure.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions
are solicited for publication

The Dresden Exposition

ON account of lack of space Mr. E. O. Hoppé, in his refreshingly independent and able review of the art-display at the Dresden Exposition, did not refer to the marvelously interesting exhibits in the various scientific departments; the extensive and brilliant displays in the Trades Building; the magnificent scale on which this great enterprise has been planned and carried out; the spacious and beautiful grounds, with ideal accommodations for refreshments, etc. An idea of the popularity of the Exposition may be gained from the fact that the attendance during the month of May was over 280,000! And four months more to be heard from! The cost of the fitting up of this vast show is over one million marks; but judging from the rate of attendance — admission one mark; during the evening fifty pennige — the guarantors will get back their investment and a handsome dividend besides. If visitors to Europe see nothing outside of the Exposition and the beautiful city of Dresden, they will be fully repaid for the journey. Lucky, indeed, are those who are able to visit this really wonderful display of photographic art and science.

Subjoined is a list of the independent American amateurs, whose work is seen here, together with the number of prints allotted to each. Those marked with an asterisk are members of the Photo-Pictorialists of Buffalo.

AMATEUR PHOTOGRAPHERS

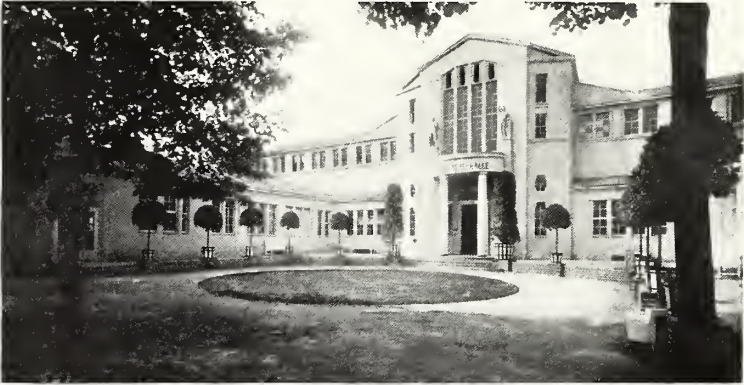
Allen, C. S., Portland, Me.	1
*Anthony, Oscar C., Buffalo	1
Archer, Chas. K., Pittsburg	1
Axell, Chas. O., Winnetka, Ill.	1
Beach, Howard D., Buffalo	1
Berger, Henry, Jr., Portland, Ore.	1
Bertling, W. E., Buffalo	1
Bingham, Katherine, St. Johnsbury	1
*Booz, Chas., Buffalo	2
Brittingham, A. D., Mt. Vernon, N. Y.	1
Brodhun, W. D., Wilkes-Barre	1
Bronson, F. E., Hornell, N. Y.	1
Brookins, D. H., Chicago	2
Burnham, C., Cleveland	1
Carruth, Anna K., Cambridge	1
Carruth, Chas. T., Cambridge	1
Castle, Wm. H., Philadelphia	2
Chislett, John, Indianapolis	2
Clarke, C. F., Springfield, Mass.	2
Clime, W. S., Washington	1
Davis, Dwight A., Worcester	1
Davis, Eleanor W., Cambridge	1
Dooner, R. T., Philadelphia	1
Dresel, Louisa, Boston	1
Eisen, Gustav, San Francisco	1
Eitel, Theodore, Louisville	1
Ellis, Wm. Shewell, Philadelphia	1
Farquharson, P. G., Brooklyn	1
Field, J. H., Berlin, Wis.	2
Flint, Arthur H., Brooklyn	1
Fraprie, F. R., Boston	4
French, Wilfred A., Boston	1
Goldensky, Elias, Philadelphia	1
Grierson, J. W., New York	1

Griffin, Lillian B., New York	1
Holden, Samuel, Brooklyn	2
Howard, A. P., Portland, Me.	1
Howe, Lois L., Cambridge	1
Ivers, J. J., Denver	1
Jones, John F., Toledo	1
Kauffman, R. S., Wilkes-Barre	2
Keller, Lee H., New York	1
*Keller, G. Edwin, Buffalo	3
Knox, Wm. T., New York	3
Kraft, Adam, Wilkes-Barre	1
Kunz, Wm. H., Buffalo	2
Latimer, Horace A., Boston	2
Leach, George W., Wilkes-Barre	1
Leavitt, Margaret E., Cambridge	2
*Lidbury, F. Austin, Buffalo	1
Littleton, Wm. G., Philadelphia	1
Loud, Joseph Prince, Cambridge	1
Macnaughtan, W. E., Brooklyn	1
Man, Gertrude E., Minneapolis	1
Mason, George J., Buffalo	2
Maxdon, Charles F., Philadelphia	1
McGeorge, Robert K., Buffalo	1
Minns, Harvey W., Akron	2
Montgomery, Robert, Brooklyn	2
Newman, Samuel J., New York	2
Nicholson, J. W., Philadelphia	1
Palmer, J. Will, Nashua, N. H.	1
Parrish, W. and G., St. Louis	1
Peabody, Caroline E., Cambridge	1
Peabody, Charles, Cambridge	1
Peabody, Henry A., Portland, Me.	1
Peabody, Jeannette B., Cambridge	1
Pearce, Mrs. W. W., Waukegan, Ill.	1
Peterson, J. R., Portland, Me.	2
Phillips, Wm. H., East Liverpool, O.	1
Phipps, Charles R., Buffalo	2
Pitchford, Emily, Berkeley, Cal.	1
*Porterfield, W. H., Buffalo	4
Rau, Carl, La Crosse, Wis.	1
Rheinheimer, Wm. A., St. Louis	1
Roberts, H. A., Portland, Me.	1
Sanger, Chas. R., Cambridge	1
Saunderson, F. A., Boston	1
Scheer, George H., Sheboygan	1
*Schreck, John M., Buffalo	1
Scott, Walter A., San Francisco	1
*Sides, Edward B., Buffalo	3
Skolfield, S. S., Portland, Me.	3
Sleeth, R. L., Jr., Wilkinsburg	2
Smith, Harry G., Portland, Ore.	1
Strayer, W. E., Pittsburg	2
Taylor, C. C., Toledo	1
*Thibaudeau, Augustus, Buffalo	4
Thompson, F. H., Portland, Me.	1
Thorne, H. J., Portland, Ore.	1
Thorpe, Joseph G., Cambridge	1
Thurston, C. O., Wilkes-Barre	1
Underhill, James E., Brooklyn	2
Weiss, Charles J., Philadelphia	1
White, W. McG., Pittsburg	1
Winchester, W. H., Sheboygan	1
Wish, O. P. T., Portland, Me.	1
Witt, Max Richard, Philadelphia	2
Yont, C. A., Denver	1
Zerbe, Wm. H., Richmond Hill, L. I.	1
Zimmerman, Walter, Philadelphia	1

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PROFESSIONAL PHOTOGRAPHERS

Alman & Co., New York	9
Baker Art Co., Columbus	5
Barrows, Frank R., Boston	2
Bateham, C. S., Norwalk, Ohio	3
Bowersox, A. L., Dayton, Ohio	3
Bell, Curtis, New York	6
Bradley, A. F., New York	10



AT THE DRESDEN PHOTOGRAPHIC EXPOSITION

ONE OF THE ROOMS IN THE GERMAN PICTORIAL SECTION
THE TRADES BUILDING

A PORTION OF THE FIVE GERMAN ONE-MAN SHOWS



Byron, Joseph, New York	4
Clark, Frank Scott, Detroit	8
Core, E. B., New York	10
Dooner, R. T., Philadelphia	3
Doty, E. E., Belding, Mich.	3
Edmondson, George M., Cleveland	5
Elliot, J. Mitchell, Germantown, Penn.	5
Ellis, Wm. Shewell, Philadelphia	5
Falk, B. J., New York	9
Fieid, J. H., Berlin, Wis.	3
Garo, J. H., Boston	10
Genthe, Dr. Arnold, San Francisco	5
Goldensky, Elias, Philadelphia	10
Hoyt, Dudley, New York	10
Hutchinson, Eugene R., Chicago	12
Janvier, Meredith, Baltimore	5
Kasebier, Gertrude, New York	5
Koehne, Wm., Chicago	5
Koshiba, Henry T., New York	3
Lifshey, S. H., Brooklyn	5
MacDonald, Pirie, New York	29
Marceau, T. C., New York	15
Mock, J. E., Rochester, N. Y.	5
Phillips, Ryland W., Philadelphia	5
Pierce, H. H., Boston	19
Proctor, A. T., Huntington, W. Va.	3
Rinehart, F. A., Omaha, Neb.	3
Schervée, Herman, Worcester, Mass.	3
Stein, S. L., Milwaukee	6
Strauss, J. C., St. Louis	15
Tingley, George E., Mystic, Conn.	3
Tyler, F. W., New York	3

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First To Be Photographed in England

To Lord Avebury, who recently celebrated his seventy-fifth birthday, belongs the honor of being the first person in England to be photographed. *Tid-Bits* states that M. Daguerre described his famous discovery to Lord Avebury's father, in London; and to prove its value the inventor made a portrait of the present peer, who was then a mere child.

Los Angeles Camera Club

ON the evening of June 2 the following officers were elected for the coming year: president, T. M. Jenkins, reelected; vice-president, R. S. Crandall, formerly trustee; secretary, T. K. Adlard, formerly vice-president; treasurer, Louis Fleckenstein, reelected. A vote of thanks was extended to the retiring officers for their faithful and efficient work during the first year of the club's existence, and also to President Jenkins for the harmonizing influence he had brought to bear on the members during his term of office. The club has grown during its first year from thirteen to nearly fifty members, and bids fair to increase to proportions that will necessitate procuring larger and better equipped quarters than it now occupies.

Who Rode the Donkey?

PERCY (exhibiting a bromide enlargement of kodak snap-shot of himself riding a donkey): See, Dick, I had this taken when I was South during the holidays. Do you think it does me justice?

DICK: Why, yes, rather; but who's the awkward rider on your back?

O wad some power the giftie gie us to see our pictures as ithers see them.

Copyrighting Photographs

THE item on the new copyright act, together with directions for copyrighting photographic prints so that they may be absolutely protected against picture-pirates, which was intended to be printed in this issue, but was omitted for lack of space, will appear as a special article in the October number.

An Autochrome Rainbow

WE had the privilege to examine an autochrome made by Charles T. Jeffery, Kenosha, Wis. It represented a view of a lake dominated by a mass of clouds and a well-defined rainbow in all its natural beauty. The picture was taken from the shore of Lake Michigan overlooking the lake, about 5 P.M., June 13, 1909.

A Prosperous Photographer

WILLIAM H. PARTRIDGE, the widely-known successful Boston photographer, who has branch studios at Brookline, Newtonville, Roxbury and Boston, Mass., has lately purchased the magnificent residence of Charles J. Page, Esq., 90 Westland Avenue, in the most fashionable business and residential section of the Hub. This is in a location well adapted to successfully carrying on a high-class photographic business of the sort with which Mr. Partridge has been identified for a great many years. This last move of one of Boston's most prosperous photographers speaks well for photography as a vocation, although the average practitioner is lacking in those sterling business-qualities, aside from artistic ability, which are the foundation of Mr. Partridge's success. We congratulate Mr. Partridge on establishing his residence and Boston studio in so beautiful an edifice, of which he is now the owner. This does away with the Wellesley branch, which has also been his home for several years.

Willing to Oblige

LADY (sitting for portrait): "Please make my mouth small. I know it is large, but I wish it to appear quite tiny."

ARTIST (politely): "Certainly, madam. If you prefer, I will leave it out altogether."

Chicago Camera Club

THE annual election of the Chicago Camera Club was held June 3, 1909. The following officers were elected for the following year: president, Dr. F. B. Noyes; vice-president, Geo. C. McKee; secretary and treasurer, H. A. Langston; directors, Clarence B. Hale, Geo. W. Alexander, C. M. Hibbeler, Chas. E. Selleck.

Meetings are held every Thursday evening, at the club-rooms, Northwestern University Building, 87 Lake St. Visitors will be cordially welcomed. During the past season several prominent Chicago artists and photographers have given informal talks, and the meetings have been well attended.

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: GEORGE W. STEVENS, Toledo Museum of Art, Toledo, O.

Vice-President: JOHN F. JONES, 934 Ash St., Toledo, O.

Secretary: C. C. TAYLOR, 3236 Cambridge Ave., Toledo, O.

Treasurer: GEORGE W. BEATTY, 1629 Nicholas Bldg., Toledo, O.

Historian: WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

JUDGING from the correspondence received by the officers of the Federation, the Sixth Salon is going to be an artistic triumph. Many of the foremost American workers have signified a desire to submit their best prints, and inquiries are received almost daily to the extent that it smacks much of patriotism. And well it might, for the foreign workers are very much alive to the benefits to be derived from the American Salon, and they will send their favorite examples of pictorial genius. The Italians have hit on a plan that must, of its very nature, prove successful. They have issued a general appeal to all workers to send their best prints to Genoa, where they will be assembled as a Salon, and an opportunity given to the public to view and pass judgment on their artistic value. The prints will be judged by a competent jury, and prizes awarded, and at the proper time the entire collection will be forwarded to the Federation at Toledo. The other Foreign Commissioners have the promise of the very best work of their respective countries, so that it will be up to our own camerists to look to their laurels so that our own artistic temperament may be shown to the best advantage.

The itinerary of the Sixth Salon will be a very attractive one, embracing, as it does, all of our greatest art-centers. It will be hung in many of our principal museums of art, such as the Carnegie Institute of Pittsburg, The Allbright Art Gallery of Buffalo, The Art Institute of Chicago, The John Herrin Art Institute of Indianapolis, The Detroit Museum of Art, The Toledo Museum of Art, as well as in New York, St. Louis, St. Paul, Milwaukee, Grand Rapids and other cities.

The prospectus and entry-blanks are out and have been mailed to all club secretaries, as well as individual workers, and if you did not receive one it will be sent you on request.

Particular attention is called to Article 6 of the conditions. Under the proposed plan, entrants may, if they so desire, submit prints ready for framing and they will go before the judges without prejudice, and accepted prints will be framed by the Salon Committee, at the expense of the entrant, at prices from fifty cents to \$1.00. This will reduce expenses to the entrant very materially and should prove very popular. The

frames will be of material suitable for rough handling, as that is needed when frames are hung as often as in a traveling Salon. Yet you may, if you desire, submit your work framed, as of old.

A Photographers' Outing

THE Sixth Annual Field-day of the Professional Photographers' Club of Boston was held June 27. The party left the North Station, June 26, at 5 P.M., and went by train to Gloucester, thence by trolley to the famous Coggshall Camp, delightfully situated on the northeastern shore of the island of Gloucester, between Lanesville and Annisquam. The scenery in this locality is of peculiar charm and appeals most eloquently to the artist's brush. Back of the camp rise thickly wooded hills alive with song-birds. The weather was very comfortable in comparison to the unprecedented and oppressive heat in Boston. The scenery tempted the artistic and interpretative skill of the artists, who were equally at home with the palette as with the camera. In the evening an attractive musical program was furnished by Mr. Parkinson, whose musical prowess as pianist and organist, in addition to his photographic ability, is widely known. The homeward journey was made Monday morning, June 28, every one regretting to be obliged to leave so entrancing a place. The party included several well-known Boston photographers and their wives: Mr. and Mrs. J. H. Garo, Mr. and Mrs. W. H. Partridge, Mr. and Mrs. Morris Burke Parkinson, Miss Nellie F. Hall, Miss E. Marion Parker, Mr. A. T. Barraud, Mr. W. A. Clark and Mr. Wilfred A. French.

Indiana Association of Photographers

THE Fifth Annual Convention of the Indiana Association of Photographers, at the Daguerre Memorial Institute, Winona Lake, July 5 to 9, was a very interesting affair and drew a large attendance. Much of its success was due to the "Association Year-Book" of this body, which is a very creditable performance. In size, workmanship and tasteful appearance it is a close second to the "Association Review" of the National Association. The credit for this excellent piece of work is due to the enterprise and energy of Mr. E. K. Shalley, the secretary of the Association, and to the printers, Berne Witness Company — both of Berne, Ind.

"Photographic Progress"

THIS is the name of a new and attractive little magazine published by the Rittenhouse Press, of Philadelphia, which will be devoted to the art, technique and business-end of professional photography. The field should prove a good one if the magazine is properly conducted, as we have reason to think it will be, and we wish our new cotemporary success and prosperity. On the staff are A. K. Boursault, Managing Editor; Thomas Bedding, F. R. P. S., Technical Editor, and J. Nilsen Laurvik, Editor.

BOOK-REVIEWS

Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.

DIE PHOTOGRAPHISCHE KUNST IM JAHRE 1908, illustrated in photogravure, half-tone and color. Edited by F. Matthies-Masuren. Size of volume, 9 x 11½ inches. Price, \$2.00; stiff covers, \$2.25. Wilhelm Knapp, Halle, Germany.

This annual pictorial survey, in a limited sense, of the photographic art is as sumptuous as ever, although in comprehensiveness it leaves much to be desired. The editor continues to rely on one narrow, prejudiced source of information regarding pictorial photography in America, hence no workers this side of the ocean are recognized except members of the Photo-Secession; the Photo-Pictorialists of Buffalo and other important groups of workers in the United States are not even mentioned. In spite of this serious omission, the volume is interesting, although the half-tone reproductions do not adequately represent the original prints. Evidently the half-tone plates were made without considering the character of the paper used in the body of the book, and which, in itself, is of superior quality. The review of pictorial activity is confined, with very few exceptions, to the Linked Ring as represented by workers in Great Britain, Germany, Austria, France, Belgium and the United States, who, however, do not appear to as good advantage as in previous years. Landscapes by Robert Reininger and Otto Scharf, a marine by Friedrich Spitzer and facsimile reproductions of autochromes by Heinrich Kühn and Hugo Erfurth are the principal art-features of the book.

ENCYCLOPAEDIA OF PHOTOGRAPHY. Brochures.

Wilhelm Knapp, Halle, Germany.

Among the recent issues of this admirable series of monographs which interest, particularly, those workers who can read German, are the following:

No. 60. Die Theorie und Praxis der Farbenphotographie mit Autochrom-Platten, by Arthur Freiherrn von Hübl. Price, 50 cents. This is the second, improved edition of the work reviewed in PHOTO-ERA for May, 1909.

No. 63. Moderne Photographische Kopierverfahren, by Dr. Erich Stenger. Price, 50 cents.

The author aims to acquaint the professional, in particular, with up-to-date photographic printing-processes, calculated to produce from intelligently-executed originals artistically excellent prints. After paying a high tribute to the amateur for having not only originated and introduced the various modern printing-methods, but taken over their technical development, Dr. Stengel proceeds to explain Ozobrome, Brom-Silber Pigment, Oil, Bromoil, Katatype and, the latest achievement in the realm of modern printing-methods, Pigment-Gravure. The man-

ner in which this important subject has been treated by Dr. Stenger is sure to create a general demand for this admirable brochure.

No. 64. Die Panoramenapparate in ihren Vorzügen und Mängeln sowie ihre Verwendung in der Praxis, by Dr. F. Stolze. Copiously illustrated. Price, 75 cents.

The energy of this resourceful and indefatigable investigator is shown in his latest published work — devoted to Panoramic Cameras, their merits and deficiencies, as well as their uses. He has handled this interesting subject with characteristic perspicuity, thoroughness and accuracy, considering it from every possible technical view-point and revealing a complete mastery of the intricacies of this form of photographic practice. Every style of camera and apparatus used for panoramic photography has been carefully analyzed, and the most successful methods are fully described. The concluding chapter is devoted to aerial photography, with special reference to panoramic views.

No. 65. Allgemeine Aesthetik der photographischen Kunst auf psychologischer Grundlage. Für Künstler und Freunde photographischer Kunst, by Herrn Willi Warstat, Phil. Dr. Price, 75 cents.

This is a serious consideration of the æsthetic aspect of the higher forms of artistic expression by means of the camera. The writer is profoundly impressed by the noble, dignified achievements of the masters of photography, including, particularly, the portrayal of character and individuality. Men of the mental caliber of Dührkoop, Perscheid, Hollyer, Crookes, Lewis, MacDonald, Strauss, Garo and others, raised far above the ordinary craftsmen, bring to their tasks not merely a complete technical equipment, but a genuine, serious artistic temperament and rare intellectual power. They are thorough students of human character and, consequently, qualified to interpret through the means at their disposal the personality of their sitters as it reveals itself to them. The psychological character of interpretations of sea and landscape is due to genius as exemplified by such pictorialists as Job, Whitehead, Blake, Kühn, Misonne and, of our own, Porterfield, Vandervelde and others. Dr. Warstat explains the technical means which facilitate such æsthetic performances, and his work is extremely interesting from that viewpoint alone.

No. 66. Die Photographie als Lehr- und Forschungsgegenstand, by Dr. R. Luther. Price, 25 cents.

This is a lecture delivered by the author, May 1, 1908, at the Technical High School, Dresden, in which he treats photography as a subject for instruction and research. Being professor of photographic science at the above-named institution, Dr. Luther advocates the application of photography to all manner of scientific demonstrations, and it is really astonishing to what variety of uses the camera is adapted. Workers desirous to seek new, unexplored fields will do well to peruse Dr. Luther's little work.

WITH THE TRADE

Visiting the Exposition

MANY of those who have returned from a visit to the wonderful International Photographic Exposition, at Dresden, have gone and come by the Holland-America Line, and speak in terms of the highest praise of the service, cuisine and comfort of this superb line, which is growing daily in popularity. The price is extremely low for such fine accommodations, which are reported to be equal to those of any other ships crossing the ocean. We earnestly recommend that this line be considered by those who contemplate a journey across the ocean.

Printing with Kruxo

ONE of the most attractive booklets that have come to our desk in some time is that just published by the Kilborn Photo-Paper Co., Cedar Rapids, Io., and entitled "Kruxo, and How To Use It." This is not merely an advertisement of Kruxo papers, but a text-book on printing, as it contains much general information that makes it worth having.

Costly Advertisements

The Ladies' Home Journal charges \$4,000 for a single page of advertising. Here are a few other high-priced publications: *Youth's Companion*, \$2,400 per page; *Saturday Evening Post*, \$1,900; *Woman's Home Companion*, \$1,800; *Delineator*, \$1,800; *Collier's Weekly*, \$1,600; *Chicago Daily News*, \$1,141; *New York Herald*, \$998; *New York American*, \$980; *New York World*, \$896; PHOTO-ERA, \$50, which price ensures a larger number of photographic readers than any of the above-named mediums.

Mr. Ward's New Lectures

MR. H. SNOWDEN WARD, photographer, editor, critic, lecturer, who, though late in making arrangements for his lecturing-tour last season, attained an unexpected measure of success, will visit us again next season. He will be prepared to give a popular science entertainment, "The Marvels of Photography," which will contain several attractive features interesting alike to photographers, laymen, scientists and highly cultured people. Besides this, Mr. Ward's satchel will contain other and equally attractive lectures, all sure to appeal to American audiences. The lecture-season in the United States will begin January, 1910; and it will be well for clubs and societies to bear this in mind in preparing their lists of entertainments for the coming season.

Actresses will happen in the best regulated studios.

Color-Photography

THOSE pictorialists who like best to see nature in her own true colors will welcome the reduction of twenty per cent in the prices of Autochrome plates. This, with the new simplified method of development and the improvement in the plates themselves, should make the Lumière process of color-photography much more popular than hitherto.

Steinheil Lenses

EVERY camerist who contemplates the purchase of a high-grade anastigmat should procure a catalog of Steinheil lenses, supplied by Herbert and Huesgen, 311 Madison Ave., New York. Of particular interest to hand-camera workers is the new Series B Orthostigmat f/6.8. Although possessing great speed, it is not too large for Kodaks, and can be fitted to Compound or Koilos shutters. It is a universal lens, and, therefore, adapted to instantaneous work, portraits, groups, landscapes, interiors and copying.

Herbert and Huesgen will also place on the American market in the near future an instantaneous ray-filter of Steinheil manufacture. This is known as the Plano-Parallel Yellow Screen. The glasses of which they are made are colored in the mass, so that the reduction in actinic action of blue rays is very great. Only double exposure is required for the lighter filters and four times exposure for the darker ones, so that orthochromatic photography is possible without a tripod. The glasses are absolutely plane and parallel, permitting of very exact work.

Chemicals of Purity

THE time has passed long since when photographers would accept without question any chemicals sold by local dealers. The importance of standard purity and quality was never so fully appreciated as it is today. Thus the successful camerist insists that his chemicals be made in laboratories of high reputation, among which that of Powers-Weightman-Rosengarten Company, of Philadelphia, stands in the foremost rank. Readers of PHOTO-ERA who require their dealers to supply P-W-R brand chemicals are assured of the best that can be manufactured. A handy list of chemicals may be had on application to this firm.

"Portrait"

THIS little journal makes its third appearance, interesting as ever, with a portrait of Dudley Hoyt, "Photographer of Women," on its cover. Many are the valuable suggestions to be found within, and professional photographers should ask to be put on the list.

PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXIII

SEPTEMBER, 1909

No. 3

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WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return postage is enclosed.

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PORTRAIT STUDY
J. E. MOCK
P. A. OF A. CONVENTION



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Landscape-Photography

DAVID J. COOK

NATURE is an admirable composer of pictures, but snap-shot photography seldom results in soul-satisfying works of art, for the reason that few photographers are possessed of art-training of such a nature that the pictorial is instantly recognized. Some lucky snap-shots are bound to be made, of course; but snap-judgment in photography, as in other pursuits, more often leads one wide of the goal. Prearrangement and forethought will ever supersede luck. Taking the photograph first and then seeking for, or manufacturing, meanings or excuses for its existence is not conducive to art. The successful pictorial worker has definite ideas, gained from observation, study and analysis of underlying principles, and possesses sufficient technique, consistent with his serious purpose.

Mere technical perfection, however, does not make a picture, nor does it excuse an ugly or vulgar theme. It may be considered "high art" (rather artifice) to so portray those objects that the art of workmanship hides the theme; but why not bestow our superior skill upon worthy subjects?

Just what portions of nature's estate will best serve our purpose in an endeavor to portray, in monochrome and on a flat surface, our ideas or conceptions of what is beautiful, elevating and of interest none but ourselves know; but if we cannot all see alike or feel alike, we can, and should, at least be governed by certain rules and laws, recognized as essential by master-workmen, and generally accepted by the intelligent observer.

Photography, unlike painting, must depend wholly upon lights and shades, lines, masses and tonal qualities for recognition. We have not the greater attractiveness of color to aid us, as has the painter; hence photographers should give every attention to the rules which govern good composition.

For convenience of analysis, landscape-photography may be divided into eight elements, or parts. First, its story-telling aspect or excuse for existing: *the theme*. Second, its singleness of purpose, or a keeping close to the principal and preëminent parts of the picture: *principality, or elimination*. Of equal importance, and closely allied to principality, is the third element, that of *subordi-*



THE FLOCK

F. C. BAKER

nation: the keeping of every other feature in subjection to the first and principal theme. Fourth, *unity*: the harmonizing of all parts; that which is fitting, giving forth no discordant note. Fifth, *breadth*: the grouping together of the several parts of the picture by the quantity and quality of lights or absence of lights so that one may have a comprehensive view of the whole. Sixth, *simplicity*: avoiding over-elaboration and detail. Seventh, *contrast*: producing variety and interest, so that an object, line or mass is not too frequently repeated, thus weakening the composition. Eighth, *balance*: the opposing of lights, masses, lines, etc., in order to impart to the picture one of the most essential elements — that of stability; for if our composition is not solid, like the house built upon sand, it will soon fall.

Regarding the first element, the theme, this should be worthy and have a distinct purpose — to teach one, excite our sympathies and to give pleasure. The principal part of the composition shall determine its mission. Having chosen the principal part, one must keep close to it; for if the attention of the observer is allowed to wander the picture will lack purpose and excite momentary interest only. If we have succeeded thus far — by process of elimination — a time and season should be chosen when the conditions of light and shade are favorable to concentration, that the remainder of the picture — the unimportant parts — may be subordinate and secondary to the main object. Unfortunately (or fortunately), the photographer can do little towards arrangement, and has



A COQUETTE
T. KAJIWARA
P. A. OF A. CONVENTION





"WITH MANY A CURVE MY BANKS I FRET"

B. V. SWEET

practically no control over light and shade; but he can choose an opportune time and a view-point favorable to the composition. If one would only study the landscape more, under varying conditions of light, and from many different points, before setting out to make his exposure, more good pictures would be the result. No picture can completely satisfy the cultured mind which has not harmony, or unity of purpose, and breadth of effect. An illustration will, per-



THE WOODLAND BROOK

EDMUND H. ROYCE

haps, best make this clear. A group of willows border a stream; a bold heap of rocks occupies the immediate foreground; a meadow shows up in the middle-distance, and a fringe of sky tops off the picture; — a common enough arrangement. The morning sunshine falls full and flat upon the scene and, in consequence, everything looks alike. Rocks are gray and flat, melting into the water, which, likewise, melts into the bank. The willows, in turn, melt into the sky and meadow, and detail is everywhere visible. The composition has no point or purpose. Later, in the day, the aspect is slightly changed, but still it lacks interest. Later still, towards evening, an exposure is made, against the light, or with the sun shining across the plate at an angle of about sixty degrees to the position occupied by the photographer. What a different view is now presented! The trees, with gracefully-spreading branches, are softly outlined against the sky. The glaring, distracting sparkle of the water, which was so noticeable a feature earlier in the day, is absent, and the water now lies in quiet shadow, with, perhaps, a suggestion of trees and sky reflected therein. The distant meadow lies basking in warm sunlight, and sunlight lights up the immediate foreground, excepting the rocks, which are mostly in shadow, tipped here and there with a glint of light to give needed contrast, variety and relief. Masses of light and shade divide the composition into its several planes of foreground, middle-distance and distance, and the picture-space is therefore nicely



PORTRAIT OF DR. JOHN GREEN
J. C. STRAUSS
P. A. OF A. CONVENTION



balanced and has plenty of breadth. The effect is decidedly pleasing and conforms to the requirements of good taste.

In regard to the spacing of the picture much has been written. It is generally conceded, however, to be highly improper to place the principal object in the center; nor is it fitting that the horizon equally divide foreground and sky. Oval and circle boundaries of the picture are out of harmony and lack stability, so that it is usual to have the picture conform to an oblong square, the horizon running the long way of the picture-space. Panels and squares are sometimes made use of, but are seldom satisfactory, aside from their novelty. It has been said that all rules and laws of art may be broken and still a masterful picture result, but it is a wise photographer who leaves this to the impressionistic school of painters. Photography, in the main, is too literal a process to permit one to take liberties with old-established principles.

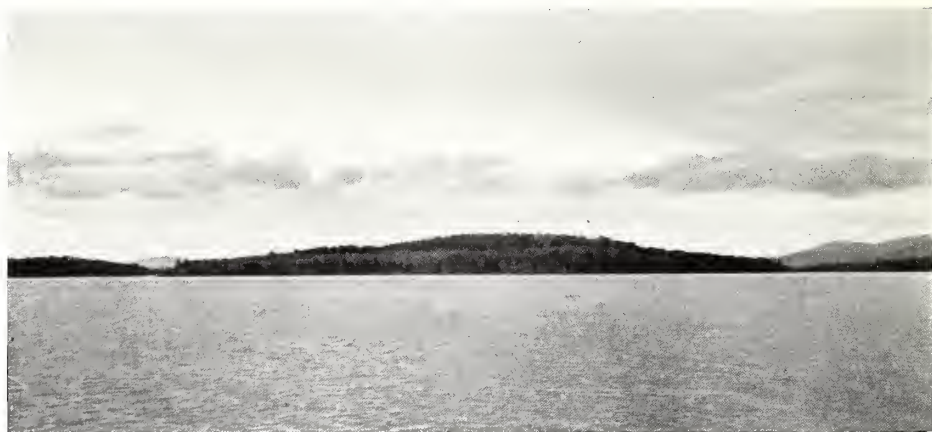
Of the many phases of landscape-photography, perhaps the photographing of trees as the principal theme to pictorial work presents the least difficulty and offers the greatest encouragement. Many rich subjects abound and a wealth of material exists: the tall, stately poplar; the sleek birch; the symmetrical maple; the bunch of graceful willows fringing the stream; the row of catalpa; the beautiful blossoming dogwood; the giant, veteran oak, with scarred trunk; the orchard in blossom, giving almost as much delight as the Christmas-tree of our childhood-days — each speaks to us in our mother tongue, in a language that we can understand and appreciate. We can see in them beauty and grandeur everywhere. They excite our sympathy, give us pleasure and teach us many great truths. Sermons in stones are proverbial; but sermons in trees are more vital, and are so plain that only a sluggard, seeing, would not comprehend.

James Russell Lowell, our great American poet, was a lover of trees, and many of the gems of Longfellow, Bryant and Whittier have as their theme the tree. Lowell loved the elm, and many fine specimens grew at his country home — Elmwood. During his sojourn in England, it is said, upon meeting a friend from home he eagerly asked, "How are my elms? Do they seem to miss me?" Jean Baptiste Corot, that famed French landscape-painter, also was a great lover of trees. They were to him as intimate friends, and he loved them, not for the cut of their clothes, but for the beauty of their souls. He has given us paintings of trees which speak to us in their beautiful upward bearing, and in their attitude to earth seem like tall children seeking to protect their mother. His summers were spent in the grand old Forest of Fontainebleau; but his favorite season was when the farthest twigs upon the spreading branches decked themselves in tenderest green and shimmered in the light.

In photographing trees, choose an hour when the sun is low in the heavens — the early morning or evening — and photograph against the light. Great care must be exercised, however, to shield the lens from all waves of light excepting those which come directly from the object photographed; otherwise, the interior of the camera-bellows will be unduly illuminated, and destroy the brilliancy of the image. Double-coated, non-halation plates are to be preferred for

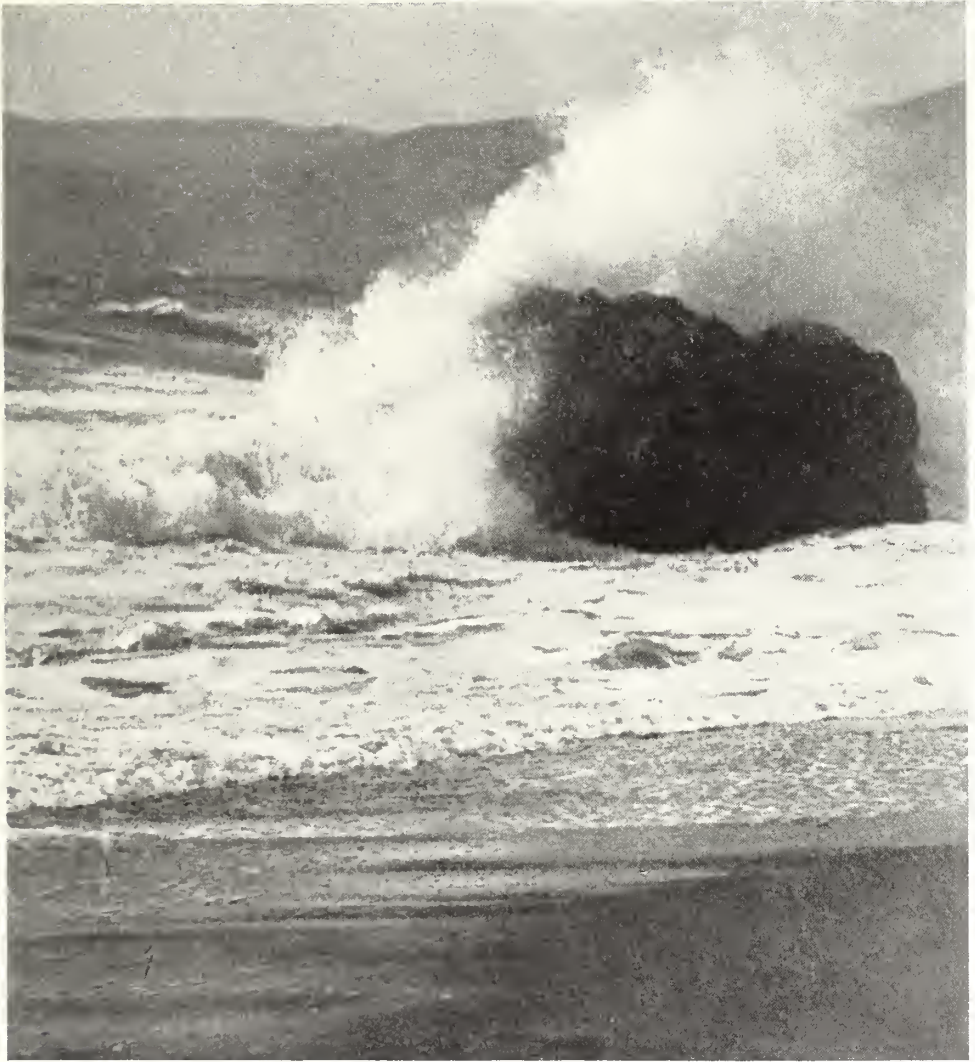
this class of photography; particularly for woodland-scenes, in which just a fringe of the heavens is visible. In the autumn, when the leaves of the trees are of many colors, color-sensitive, orthochromatic plates will be needed to give correct tonal values. The diaphragm of the lens should be of normal opening, as a certain diffusion will the better express life and give feeling to the picture. A painfully-sharp photograph, one in which every leaf stands out strong and clean-cut, detracts from the natural beauty of the scene. The focal length of the lens should be at least as long as the diagonal of the size of plate used. This will allow the camera to be placed close to the ground, which will tend to add dignity and stability to the landscape. The exposure should be ample; a slight movement of the branches and leaves will not be objectionable in the least, but rather add to the naturalness of them. Development should be full, and a rather strong developing-solution used, excepting in the case of double-coated, non-halation plates. For a normal developing-solution, about three grains of the developing-agent (pyro) to the ounce of solution will be right; but for double-coated plates one-half this amount of pyro will suffice. The addition of from five to ten drops of a ten-per-cent solution of potassium bromide to the strong developer is also advantageous. The negative should be snappy and possess a nice balance of light and shade. Without doubt, the platinum printing-process is best suited to landscape-photography, both in tone, texture and breadth of effect.

Some of our best-known professional portrait-photographers are great lovers of landscape-photography, and receive pleasure and inspiration through courting nature with their cameras. What a solace, after a week of the trying ordeals of studio practice, to bask in nature's smiles and watch the sun-splashed leaves with delight (some lover of nature has said, "Such touches of sunshine are like affectionate caresses from an unseen hand")! Give us more of nature's smiles — the fields and the woods.



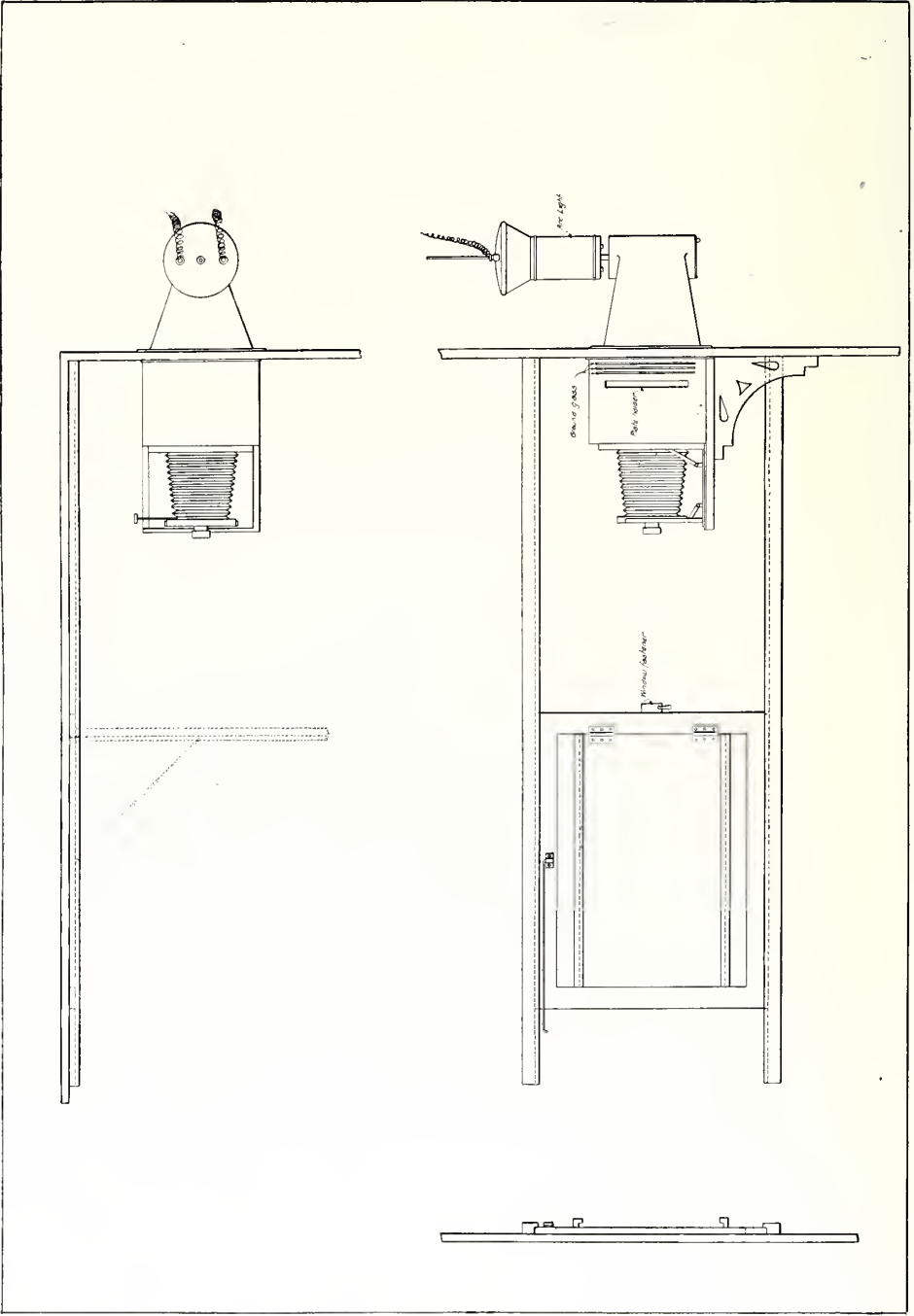
MARK ISLAND, LAKE WINNIPESAUKEE

F. A. WAITE



THE BREAKER
R. L. SLEETH, JR.





The upper diagram is a top-plan view of the apparatus, the position of the easel when in use being shown by dotted lines. The lower left-hand diagram is an end section of the easel and wall-cleats. The lower right-hand diagram is a side elevation showing the easel folded back against the wall.

Enlarging by Arc-Light without Condensors

L. F. MITTEN

WHY more amateur and professional photographers do not take up enlarging is hard to tell. Possibly some are deterred from practicing this interesting and profitable branch of photography by the seemingly high first cost of the necessary equipment, while others decide that they have not the room to instal an outfit in their present quarters.

A description is given below of an outfit that is in daily use, making enlargements from 8" x 10" negatives without the use of condensors. This outfit was home-made, and can be duplicated for a very small sum by any one. From the cuts it will be seen that very little space is occupied by the outfit in the dark-room, the easel taking up practically no space when not in use. The writer does not make any claim of originality for this arrangement, with the exception of the easel; this he believes to be a new idea, and could be used to great advantage by all photographers, whatever means they may employ for making their exposures.

The source of light for individual cases will, of course, be determined by local conditions. The outfit in use, as will be seen by referring to the cuts, receives its light from an ordinary electric arc-lamp. This lamp is fitted with a reflecting-cone made of tin and fastened to the outside of the dark-room partition. The partition, of course, has a hole cut in it the same size as the opening in the negative-box. The distance from the side partition of the dark-room to the center of the opening should be from 16 to 18 inches. This, of course, will depend upon the size of the enlargements it is desired to make. The negative-box may be of very crude construction, if so desired, although the additional cost for finished lumber is not very great, and makes a much more pleasing job. The box is made of suitable size to receive the camera that is to be used for enlarging.

A slot should be cut in one side of the box suitable to receive a standard plate-holder such as is ordinarily used with the camera. There should also be three slots cut in the same side of the box for receiving ground-glasses, as shown, for diffusing the light. Guides or strips should be placed inside the box for the negative-holder, and also the ground-glasses. This will insure the negative always being parallel with the lens when the camera is set in position, as described later. The first ground-glass should be placed about three and one-half inches from the negative, so as to ensure proper diffusion of the light.

The only alteration that is necessary in order to use the standard plate-holder for a negative-holder is to cut out the pasteboard partition. The negative can then be placed in the holder the same as an ordinary unexposed plate. (For the information of those not familiar with enlarging it might be well to state that the film-side should be towards the lens and the negative bottom-side up.)

The bottom of the box should have an extension, as shown in the cut, for supporting the camera. At the front of the extension should be fastened a strip parallel to the guides in the box which take the negative-holder. When a negative



A SOUTHERN BEAUTY
N. BROCK





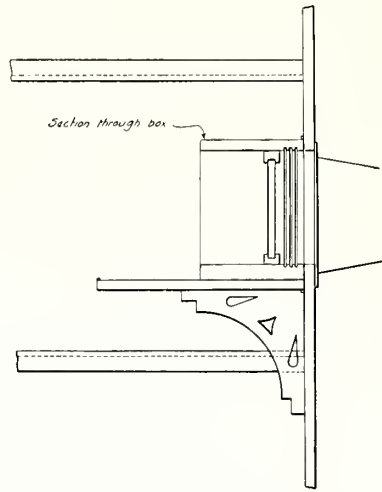
THE PEASANT GIRL

CAMILLE BELLANGER

is in position in the holder, and the camera is drawn up to the strip just mentioned, it will readily be seen that the lens and negative will also be exactly parallel.

The easel is also very simple in construction, and can be made at a very small cost. The top and bottom guide-strips are secured to the side-wall as shown in the cut. The length of the guides, of course, will be determined by the focal length of the lens, and the size of the enlargements to be made. This information can readily be found by referring to any well-known book on enlarging. This is not an important matter, however, as they can be lengthened if it is found

desirable to do so. The frame for the easel is similar to the ordinary window-frame; the easel proper is swung from this frame by means of ordinary hinges. After the easel is in position a rod should be made of about one-eighth-inch round iron, the ends being turned down, as shown in the plan. A small piece of light iron or brass should be fastened to the frame of the easel with a hole in the latter to receive one end of the rod. The easel proper should then be swung into position as shown by the dotted lines. With a carpenter's square make sure that the easel is parallel with the strip on the front of the camera-box; mark the spot where the other end of the rod strikes the top of the easel. A hole should then be drilled in the top of the easel so that the end of the rod will slip into it easily, but not large enough to let the easel move.

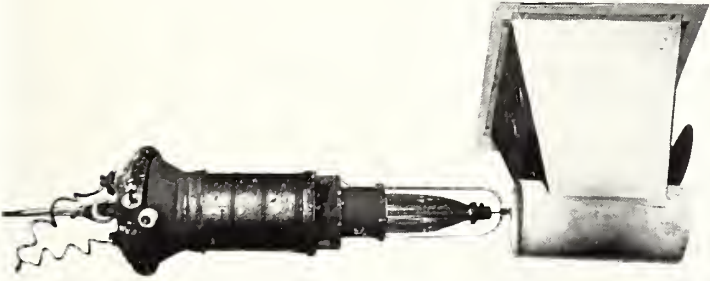
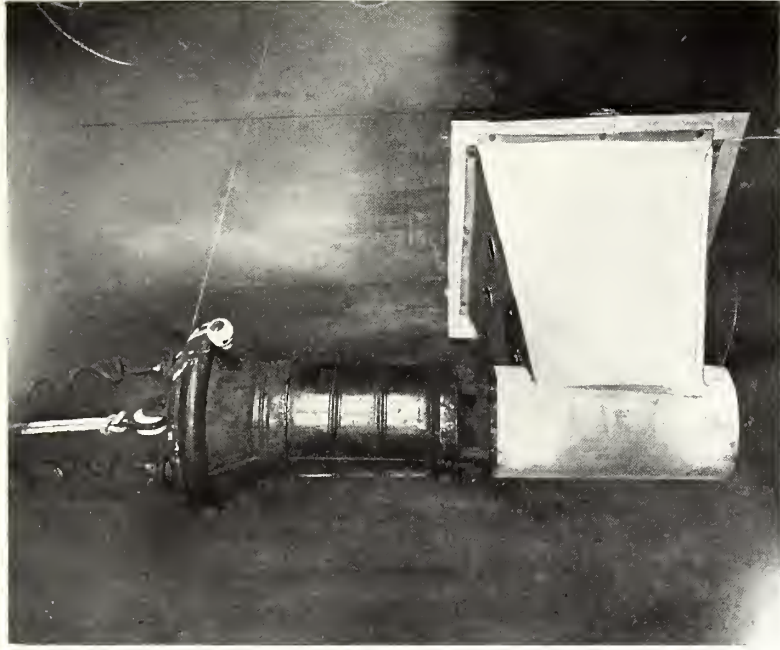


DETAILS OF NEGATIVE-BOX

By referring to the cut of the end elevation of the easel, the method of holding the printing-frame for the paper will readily be understood.

Assuming that everything is in readiness, a negative is placed in position in the negative-box. The camera should then be placed in position and drawn up close to the strip on the front of the camera-shelf; the easel should then be swung into position and fastened by the rod as shown by the dotted lines; then the negative, lens and easel will be absolutely parallel. The whole easel-frame should be slid in the guides until the desired size of enlargement is shown on the board. This easel-frame should then be fastened with an ordinary window-fastener, which is secured to the frame, which will come in contact with the side of the building. The easel proper can then be swung in and out at will without in any way affecting the relative position between it and the lens and negative.

The writer will be glad to furnish a working-drawing of this arrangement upon application to this magazine, provided five cents in stamps are forwarded to cover postage.



5310

REFLECTING-CONE WITH ARC-LAMP RAISED FOR INSERTING NEW CARBONS, AND ALSO LOWERED AS IN USE

The Selling-End

C. H. CLAUDY

THERE are two great economic divisions in all industries in which money is received in exchange for goods delivered. They are the department of manufacture and the department of sales. The finest factory, the best methods of manufacture, the most superior material, could not make one cent of profit if the goods were not sold. The most capable sales-department, the best advertising-service, the most perfect business-organization, could not succeed if, first, it had no goods to sell, or, second, if its goods were not as they were represented.

It is customary for photographers to regard their work as "different," and one hears more of the art-side of professional portraiture than any other. Yet all professional portrait-studies are nothing more, economically considered, than manufacturing and retailing establishments under one roof.

Modern business must be conducted according to certain well-recognized axioms, or fail of entire success. These axioms are modified for various individual conditions, but remain fundamentally the same. The successful photographic business is run according to these axioms; the failures, in some other way.

Any advertising-expert will inform the curious that anything can be sold by advertising, from gold bricks and bottles of sea-air to instructions in the art of dancing and "The Ancient Chaldean Secret of Longevity"—for a time. But these same experts will tell you also that if an extended advertising-campaign is to pay in the long run the goods behind it must be "right." In other words, you can sell stock in a wild-cat mining-scheme for a little while by advertising, but you can't keep it up, because the public finds out the truth. Then your advertising is a loss instead of a gain. But if you have the goods which correspond with your advertising, and people buy goods of that kind, advertising will pay to the end of the chapter.

Inasmuch as this article deals with advertising and with selling, nothing further will be said about the kind of goods; it will be taken for granted that you know that advertising will not fool the public for long, and that you can supply the pictures which customers want.

Now "having the goods" does n't mean that you must have the best, the finest, the cheapest, the most beautiful photographs in the world. It means that you must make the kind of goods (pictures) people *want*, and that these pictures are just what you say they are in your advertising. For a homely illustration, take the catchpenny itinerant photographer who displays some platinum prints in his show-case but delivers cheap D. O. P. prints. He is advertising a lie with his display. He can make this trick work for a little while — but then he has to move on. Consequently, if you advertise, for instance,

"New York Theater Panels... \$20.00 a dozen,
New York Prices.....\$50.00 a dozen,"

and in place of handsome sepia platinums on heavy double card mounts endeavor to palm off D. O. P. thin stock, you will probably succeed in fooling a few people. But then your public will find you out, and your studio, and you, too, have a black eye for good.

The best asset you can have is a reputation for integrity — for doing what you say. If people believe your advertisements, be they what they may, they are worth double what you pay for them. You can't have a reputation for integrity and fair dealing unless you are honest and play fair. In other words, in photography, as anywhere else, it pays in gold coin to be honest.

Let us consider that point settled — you must have the goods, and you must tell the truth about them in your advertising.

Now, just one more discussion before we get to the ways and means of advertising — *why* should you advertise? A lot of you don't, except by the show-case. In New York you have trouble with that, on account of the law against display of pictures without the consent of the sitter. But if you think that the way you have always done, and the entire generation of photographers before you has always done, is the only way, take a leaf from the book of the successful seller of goods in some other line.

In the early days of retailing, merchandise display of goods on the counter, which was the only method of advertising, was enough. Now, if a storekeeper had to depend for selling on what the public *sees* he would n't be in business long. He has to let people know what he has ready for them to see and to buy.

Years ago, when there was but one photographer to a town, and photography was new, a show-case kept your camera busy. Conditions are different to-day — competition is keen; novelty has worn off; other men do as good work as you. If you don't let the people know what you have, what you do, why your work is to be bought in preference to that of the man around the corner, you are letting the selling-end run behind the manufacturing-end. If you ever have a day when your time is not taken up, every minute of it, in making sittings your business is not running at top-speed. An idle plant eats up profits. It is the business of the selling-end to make the demand. It's just as important to your business that you have a good selling-plant as that you have a good studio and a good operator. And the selling-plant is the advertising-end of the business.

Now there are advertisements and advertisements. The pernicious policy of conventions of charging an admission to the public to see an exhibit of fine portrait-work is an example of what will happen to any man who tries to run a business without a knowledge of business. It's just on a par with curtaining your show-case off and charging passers-by ten cents a look! I am told the practice is necessary because several years ago some one liked a certain photographer's work so well that he stole it from the convention exhibit. And the man from whom the exhibit work was stolen raised a howl.

If I had a picture in a National Convention Salon and wanted to get it advertised I'd hire a man to steal it, or steal it myself. I could n't think of any better method of advertising it than to have people talk of it as the picture some



HAYING ON THE MARSH

ALBERT G. SMITH

one coveted so much that he stole it. I'd exhibit a duplicate of it as "The Stolen Picture." I'd advertise it in the newspapers of my home town — "Come and see a copy of the picture which was so beautiful it was stolen off the walls." But not so this man. He failed to realize what the Fates had given him. And a narrow-minded policy has kept the very public which buys pictures away from the pictures made for them to buy, because once one exhibitor was given the chance of his life to advertise his products! Could anything be more absurd!

As to the methods you should use for advertising, the first and last requisite should be dignity. While there is no question that economically you are but a small factory selling direct to the consumer, practically you do not want to put yourself on a level with the ordinary retail-store on the street.

Yet that is just what you do when you resort to "bargain-matinées," coupon-schemes, giving your pictures away as premiums in a guessing-contest, etc. Such things are the wrong kind of advertising. If you don't value the dignity of your profession, or the character of your work, the public won't do it for you.

Newspaper advertisements, well-written, well-displayed, not too large, perhaps illustrated with a cut — but, shades of Daguerre, not an alleged funny cut — are good. Street-car cards are inexpensive and highly effective, provided they are in themselves artistic, catchy and changed weekly. If you are first in your field you can tie up the car-advertisement people so that you are the only



THE TREES BY THE RIVER

O. E. JUDSON

photographer who can use the cars, and this secures you against competition in this one line, at any rate. House-to-house canvassing is undignified, expensive and does more harm than good. You cannot afford to forget that the results of any advertising you may do are to be measured not only in terms of dollars returned, but of the help or hurt you have done your reputation. Nothing succeeds like success. People will buy of the man who is succeeding even when they might buy more cheaply and get just as good pictures of Smith, around the corner, who is unsuccessful because he does n't advertise well.

The foundation of advertising-success is something to advertise. The show-case is one of the pillars of support — it should be changed weekly, if not daily, and made as attractive as possible. Small newspaper-advertisements should be tried in different mediums at different times, and those papers and times selected which bring the best results. It is easy enough to trace results to the proper advertisement, but don't do it in the clumsy and threadbare way of advertising a coupon worth fifty cents on an order, when clipped and brought in! To advertise a special style by name — make up the name, and keep a list of all who ask for that style — is one safe and dignified method of tracing results.

Booklets, circulars, leaflets, etc., sent to lists of names, are highly profitable if well done, but are usually more effective in securing return orders than new business. The reason is not far to seek — the lists are usually made from studio-records, and those are almost always old customers. "New business" lists are generally compiled from the telephone-book, but the day is past when the possession of a telephone indicates either social standing or money in the bank.

The whole trouble lies in the fact that the photographer who advertises expects some magic in the word or deed to bring in the money he has spent, every claw on every double eagle sent out to come back full of new dollars. But advertising will bring back only what you put into it in thought and brains. It is little use to get interested names if you don't use them. Trace your results and card-system your names, and make your leaflet or circular or booklet play on the names of those who rose to your bait but whom you failed to land. Never forget that every name you have secured through your advertising is so much money expended. Remember that every time you send out a circular it costs you from three to five cents, and don't waste ammunition.

But above all, keep constantly before you the thought, "What I do in advertising must be in keeping with the dignity of my work and its character; its gains are to be counted not only in immediate orders, but in what help it has been in the better establishing my reputation. Let me live up to my reputation and my promises, and increase my sales by doing what I say, and the reward of advertising is as sure in the end as the bills are present now."

Thousands have so argued, and thousands have succeeded.

Will you be the thousand and first?

How the Painters Do It

F. A. WAUGH

I HAVE lately been doing a few art galleries for a special purpose not connected with photography, but I could not help thinking about camera work nevertheless, and I made a few observations which seem to me to have a direct bearing on current discussions among art-minded photographers. I will note these down here as briefly as possible.

1. Great progress is being made in the art of painting. In the first place there is wonderful progress in technique, enabling the modern painter to express himself more freely and fully than could the painter of one hundred years ago. In the second place there is an even greater advance in that part of the art which lies beyond technique. The modern painters are opening up whole realms of beauty never dreamed of by their predecessors. The most interesting thing about this progress, however, from our point of view, seemingly is that the forward movement runs exactly parallel with the best progress in artistic photography. Perhaps this will appear from the notes which follow.

2. Progress seems to be away from the story-telling picture. This, of course, is the result of several forces, especially of impressionism and of the "art for art's sake" idea. But it leaves the field to purer esthetic delights, to the absolute beauty of line, color and tone. Now composition, line and tone are precisely the elements in which the good art photographer revels, so that, barring color, he is working in the same field as his brother of the brush.

3. A decided simplification of composition is also apparent. A number of figures in various attitudes being no longer necessary to tell a story, the artist needs only a few graceful lines or softly blending masses to make his desired effect. Here again we have repeated the exact experience of all thoughtful photographers. Our most successful and most enjoyable photographic salon exhibitions show the greatest simplicity in composition.

4. Much greater attention appears to be paid nowadays to tonality in painting, and this again, I think, parallels our experience in photographic art. At least, I can say that for me no photographic print is very satisfactory without well-handled tones; and certainly the delicately-graded tones of Hollinger's portraits are a joy in themselves.

5. A shorter range of tones is adopted in these days than ever before. In some cases this passes into a decided flatness, such as is affected by many of our foremost art photographers. It produces the effect of water in the developer, to quote the touch-word of my friend Henry Hall. The favorite trick of painters twenty-five years ago was to place one spot of brilliant light in the midst of a canvas otherwise shrouded in dense gloom. This necessitated strong contrasts. To-day the painter avoids such effects, and with a much shorter tone-compass handles his gradations much more delicately. In this field, however, the leading photographers have beaten all but the very best painters.



THE ATHLETES

FREDERICK J. BALL

6. Modern paintings as a whole are keyed considerably higher than those of twenty-five to fifty years ago. The painter of to-day not only contents himself with a shorter gamut, but he chooses his tones nearer the top of the scale. Some of Dewing's and Thwachtman's best works, for example, come pretty near to being white canvas. The impenetrable and dismal gloom of forty years ago is distrusted, and I think rightly so. And herein I find a lesson for photographic art. It seems to me that the fashion amongst even our best camera workers is to pitch their pictures in too low a key. Brighter and more cheerful tones offer the same opportunities for skilful technique; and certainly the painters have indicated this line of progress.

7. Finally one practical hint. No painter ever frames his picture with a mat. The wood is brought close up to the picture, no matter how small. Those who are seeking broader effects in photography must simply make bigger prints; and I think I have already noticed a decided tendency in this direction, also, among my photographic friends.



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CHICAGO

A GOOD STORY
MELVIN H. SYKES
P. A. OF A. CONVENTION



EDITORIAL

Traffic in Second-Hand Apparatus

AS a photographer set up his camera in Madison Square recently, preparatory to taking a view of the Metropolitan Tower, a gentleman advanced, stopped and examined the outfit, particularly the lens. Nodding his head, he waited till the picture was taken, then informed the artist that the instrument was his personal property, and that it had been surreptitiously removed from his camera in a down-town restaurant a few weeks before. The result was that the possessor of the lens surrendered it to the lawful owner, but squared himself with the tradesman — a dealer in second-hand lenses and cameras not far from Nassau Street, who had bought it, cheap for cash, from a man *entirely unknown to him*. He is said to regularly conduct this kind of a business — buying and selling photographic goods without assuring himself, as he should, of their rightful origin. This time he was a loser by \$20.00 — the amount he had paid the thief for the lens.

An honest and careful dealer will handle no second-hand goods unless his sources of supply are above suspicion. In these days of lens and camera bargains — so generally advertised — it behooves the economical buyer to be careful whom he patronizes. Some dealers will not buy or take on sale articles from strangers, least of all property that might be mortgaged or even stolen. Magazine-publishers who aim to protect their readers are equally cautious in accepting advertisements of this character. Also, not every dealer in second-hand supplies is scrupulously particular regarding the character of his purchases.

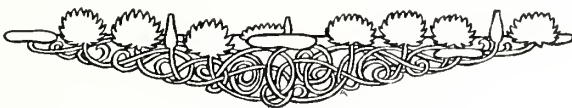
Photography Rampant

IT is one of the anomalies of the age that there is no uniformity in the standards set up by the different civilized nations. In Germany a law went into effect, last year, according to which not only the portrait, but the home of any person within the limits of the Empire, is sacred from the assaults of the promiscuous camerist. Just the opposite view is taken in the United States: here no citizen's features are safe from the eavesdroppers and highwaymen of the camera. In New York State a law has been in force for several years to the effect that the portrait of no person shall be used for any purpose, whatsoever, without his written authority. This law has decided merits, although, obviously, to the disadvantage of the photographers' business. They have regarded it as their traditional and inalienable right to exhibit the portraits of their patrons either in show-cases at the door or in their studios or reception-rooms. This privilege, doubtless, has been abused to a very considerable extent and, as a result, the above-named New York law was enacted and put in force. The photographers of that State

are trying to lessen the hardships thus imposed upon them, although many of the prudent ones have shown a desire to conform to the terms of the law, however obnoxious it may be to the majority of their fellows. Indeed, not a few high-class practitioners intend to dispense altogether with the conventional picture-display at the street-entrance, and to rely on some entirely different, but refined and equally effective, form of advertising.

The casual observer is disposed to believe that no high-minded photographer would think of using a portrait for advertising-purposes without first obtaining the owner's permission. Yet this may be done, it seems, with impunity in the State of Rhode Island, according to a decision handed down June 22 last, by the Supreme Court of Rhode Island. The publication of a person's photograph for the purposes of advertising, without his permission, cannot be made the basis of a law-suit. The decision was given by Chief Justice Dubois in the case of James N. Henry vs. Cherry & Webb. The defendants in question published a photograph of Mr. Henry and a party of friends in an automobile. The picture, which was loaned, was used to advertise automobile-coats. The case in question was certified from the Superior Court to the Supreme Court, which decided in the negative upon these questions: "Has a person at common law a right, designated as a right of privacy, for the invasion of which an action for damages lies? Is the unwarranted publication of a person's photograph for advertising-purposes actionable at common law, where the only injury alleged is that of mental suffering?"

We have not the least desire to criticize the verdict rendered in this case, which is based on an interpretation of common law; but we regret the prospect that henceforth not only are the face and home of every private citizen of this great republic at the mercy of any reckless, inconsiderate press-photographer, but they may be made to serve the most selfish commercial ends from any unsuspected source. There are laws according to which it is distinctly made a punishable offence for one person to cause mental suffering to another; and why does not being photographed against one's expressed desire or without permission also cause mental suffering? The average individual in this country does not object to publicity of the right sort; nevertheless, there are many refined and sensitive persons who are unequivocally opposed to having their pictures published in magazines and newspapers, even if the illustrations are technically admirable and the likenesses excellent. Such persons should be protected against the unwarranted publication of their portraits. However, there seems to be no remedy in the State of Rhode Island; we know not what the outcome may be in other States. Is it true, then — as has been asserted — that the United States is a country of license rather than of liberty?



THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

Photographing Color-Contrasts

[Extracts from advance proofs of a book of that name by R. James Wallace, director of the Research Laboratory of the G. Cramer Dry-Plate Co., formerly Instructor in Photophysics at the Yerkes Observatory, University of Chicago.]

ALL photographic workers have alike been handicapped by the difficulties attendant upon the copying of colored objects or prints and their representation in black and white by means of photography; and, generally speaking, the exact knowledge of just *what* plate and *what* color-filter to employ in each individual case is a matter upon which only the most hazy ideas prevail.



FIG. 1. CROWN PLATE, NO FILTER

As an example illustrative of the case in point, let us assume that the work in hand consists of a page of ordinary typewriting in characteristic purple ink, and that upon this sheet there have been annotations or changes, made in ordinary blue pencil; furthermore, let us assume that, through accident or carelessness, some one has upset a bottle of red ink over it.

The customer's demand is to obtain one photograph which will show with maximum clearness the original copy, together with the blue-pencil changes, but *with the red ink blots obliterated*; also another print, which will show all three: *typewriting, pencil and red ink*. How do we proceed to obtain the desired results?

If we photograph the copy on an ordinary plate we obtain the result shown in fig. 1, in which the blots are by far the most prominent objects, the typewriting and pencil being almost lost. If, on the other hand, we make use

of a red contrast-filter, we can cut out all the green, blue and violet light before it falls upon the plate and if the plate itself be sensitive to red, then the red blots will photograph with a strong action. See fig. 2.

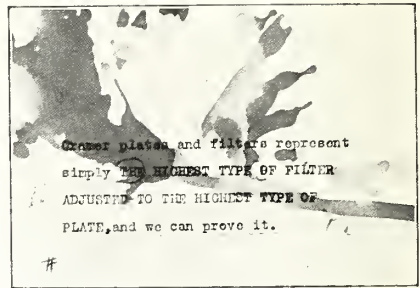


FIG. 2. INST. ISO PLATE WITH O. FILTER

To obtain a print fulfilling the second demand, viz., showing a record of all three colors, it is sufficient to make use of an orange filter and an "isochromatic" plate. The orange filter acts upon the violet and blue (precisely as did the red filter) and renders them black, which does not record; while the plate not being sensitive to the red, this color also has no action; thus we obtain a negative which gives a print showing all three. See fig. 3.

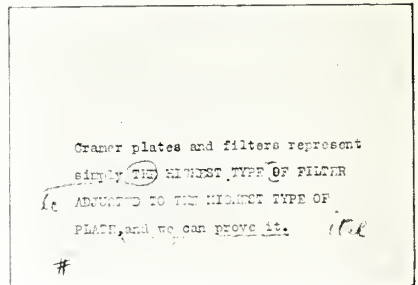


FIG. 3. SPEC. PLATE WITH B. R. FILTER

It is a fact which has long been known by the student of color that to photograph any color with increased relative contrast, i.e., to make it

darker, it is necessary to make use of a plate and a filter which will, in combination, utilize only the light absorbed by the colored object itself. If, on the contrary, we desire to weaken or obliterate any particular color, then it is necessary that we make use of a filter and a plate which will, in combination, act only with the light of the same color as the object. Thus, in the example first given, the red ink was obliterated by the use of a plate and filter making use only of red light, while the blue and the violet were rendered darker, because red absorbs those colors. For example, to photograph red so that it may show as black, make use of a green contrast-filter and a green sensitive plate; conversely, to photograph green as black, make use of a red contrast-filter and a red sensitive plate. Again: to show blue as black, use a yellow contrast-filter with a yellow sensitive plate. Or, to show yellow as black, use a blue contrast-filter with a blue sensitive plate.

It must also be understood that while, say, green is the best contrast-filter for use with red, it is also the best contrast filter to use with brown, for brown is simply red degraded (or mixed) with black; also, the same filter applies to pink, because pink is simply red diluted with white.

The following table will indicate the general sensitiveness-extent of some of the Cramer plates selected and arranged in order from red down.

1. Cramer's "Spectrum" and "Spectrum Process" = Entire spectrum.
2. Cramer's Trichromatic = Entire spectrum up to the bright red, but having neither the extent nor intensity of sensitiveness to the red and orange characteristic of the "Spectrum" plate. The "Spectrum," "Spectrum Process," and Trichromatic must be handled in total darkness.
3. Cramer's Instantaneous and Medium Isochromatic, and Isonon = Sensitive from the ultra-violet up through the visible violet, blue, green and yellow, the maximum sensitiveness still remaining in the violet. Insensitive to red or orange.
4. Cramer's Slow Isochromatic = Maximum sensitiveness lies in the yellow and yellow-green; sensitive also to the blue and violet. Insensitive to red.
5. Cramer's Crown, Banner X, Process, etc. = Sensitive to the ultra violet, violet, blue, and slightly to the blue-green.

Color-filters (or ray-filters) are divided into two classes: (a) *compensation-filters*, which are of use in general portrait and landscape work, and (b) *contrast-filters*, which are for use in the individual accenting of one or a limited number of colors. Both types are necessary for the intelligent worker who is looking for good results, but the one type can never be replaced by the other, for each fulfils a specific demand, and performs a work impossible to the other.

The production of a set of contrast-filters is a matter of primary importance, and the G.

Cramer Dry-Plate Company is now prepared to supply them either in complete sets (seven filters) or singly, and at prices readily within the reach of all. These filters are made up of the very highest quality of optical glass, which has been reground and polished perfectly plane. This quality of surface is of major importance, if the image formed by the lens is to be preserved with its sharpness unimpaired. These plane glasses are coated with gelatine, carrying the combination of dyestuffs necessary to produce the exact absorption desired, which absorption can only be determined by means of the spectroscope or spectrograph, and is impossible of adjustment by the unaided eye. The very highest care is taken in their preparation, and each filter of a given transmission is precisely identical with every other filter of the same type. They are then cemented and carefully baked, to harden the balsam between them, individually tested, and then packed in cases. These contrast-filters are listed as follows: D. R., Deep Red; B. R., Bright Red; O. R., Orange Red; O., Orange; G., Green; B., Blue; V. L., Yellow.

The contrast-filters of most general use follow:

Filter	Plate used	Color photographed dark	Color photographed light	Color of filter.
G.	Inst. or Med. Iso.	Pure Red.	Green.	Green.
B.	Crown, etc.	Orange.	Blue-green.	Blue.
B. R.	Crown, etc.	Yellow.	Blue.	Violet.
B. R.	Spectrum.	Green.	Red.	Red.
O. R.	Trichromatic.	Blue-green.	Orange.	Orange-red.
O.	Inst. Iso.	Blue or Violet.	Yellow.	Orange.
V. L.	Inst. Iso and Trichromatic.	All colors with correct visual brightness.		Yellow.

Do not attempt the use of contrast-filters with plates other than those specified and expect identical results: the effects obtained are not inherent in the filters alone, but are due to the light utilized by the plate and filter combined.

A Developer for Women

IN *Photography and Focus* Miss Alice M. Perceval writes: "The best non-staining developer I have found so far is pyrocatechin. I use it in the ordinary pyro-soda formula, simply substituting pyrocatechin for pyrogallic acid. The stock solution of pyrocatechin does not keep so well as pyro, but it will keep in good working-order for at least a month or six weeks. It goes brown in that time, but its developing-power does not seem to be impaired, though with longer keeping it goes off entirely. The brown developer does not stain fingers or plates in the slightest. The sodium carbonate solutions used in developers roughen and spoil the appearance of one's fingers, and as almost all developers contain these or similar substances, it is wise to keep one's fingers out of the solutions as much as possible. even when a non-staining developer like pyrocatechin is being used."

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus.



THE POTATO-DIGGERS

H. Y. SUMMONS

FIRST PRIZE — FARMING-SCENES

Studies in Composition Harmony

IN a recent story entitled "A Failure in Art," it is told how a farmer stood watching an artist transfer to canvas a beautiful semblance of the scene that lay before him. The old man was intensely interested in the skill and rapidity with which the artist mixed his colors and applied them, each stroke of the brush bringing out some salient point of the landscape. He silently noted the progress of the work until a specially clever touch brought out a striking point, when he exclaimed:

"Wall, I vum, ef I had my choice agin of what I'd like to do, I'd take paintin' mighty quick. You can fix up a picter and leave out all the things that ain't pretty. When you look at the real thing you've got to see everything that there is to see, but when you're paintin' you can chuck in just what folks wants to see."

This shrewd comment on the power of the artist in leaving out "the things folks don't want to see" showed that the farmer, though untrained in art, immediately recognized the sense of harmony produced by eliminating those objects which did not in any way add to the beauty of the picture.

The definition of harmony when applied to a picture means that each object introduced into the scene has an harmonious relation to the other objects. Harmony in art is a state of order and completeness in the relation of the different objects in the picture to each other.

Ruskin puts this very aptly when he defines harmony as "The help of everything in the picture by everything else."

The amateur who aims to create with his camera an artistic picture must select with care the objects to be introduced and note their effect on each other. If they do not add to the completeness of the composition then they are out of harmony and spoil the picture.

This is as true of portraits as of landscapes. In portrait work, where one wishes to produce an artistic picture, then one must study the style of dress, the texture of the material, and its fitness for the sitter. The modern dress is seldom artistic, hence the inharmonious appearance of a picture taken, for instance, three or four years ago, when large sleeves were in vogue. Compared with the present-day gowns of ugly scantiness they look *outré* and ugly, and the present-day gown will have the same incongruous look when a year or two have brought other changes in cut and shape.

The simplest gowns are always the most artistic in a picture, and a gown is much more easy for the amateur to manage than to try, as many do, to drape material about the figure, hoping thereby to secure artistic effects. Unless one is a real artist such costuming is sadly out of harmony, and gives the beholder a feeling of insecurity, as if, were the figure to make a slight movement, the whole costume would tumble to the ground.

Studies of still-life also require that the objects shall be arranged and chosen with a view to the harmonious relation of each to the other. Line and form should also receive special attention when making studies of still-life; and remember that it is one of the first principles of art to leave out all that does not contribute to the composition and to put in anything that adds to the completeness of the subject.

To effect the sense of harmony in a picture the objects should be arranged so that emphasis is put on the principal object—that is, place it in such a position that it is the first thing that catches the eye, keeping the other objects more subdued in lighting and detail.

The best object-lesson in harmony is to study the works of the masters of art, and understand why each particular object was accorded its particular place. Photographs of the best paintings make this study possible to every one, and the fact that they are rendered in monochrome makes the photographic study of special value to the photographic artist.

✎

Success is the antithesis of failure. PHOTO-ERA is the antithesis of its imitators. The best is never too good. Get it by getting on to our subscription-list.

Working on the Glass Side of a Negative

WORKING on the film side of a negative requires that one have a light and skilful touch and knows just what touches are required to perfect the negative without injuring it. Working on the glass side of a negative, however, is an entirely different matter; for "if at first you don't succeed, you can try, try again."

There are two ways of working on the glass side of the negative, either of which is very satisfactory. One way is to attach a piece of tracing or onion-skin paper to the negative and work on the paper, and the other is to flow the glass with ground-glass varnish, which makes an excellent tooth for the pencil to work upon.

If tracing-paper is used attach it to the glass side of the negative by means of small gummed strips or by pasting it slightly at the edge of the negative. If onion-skin paper is used moisten it, lay it on the glass and rub down with a squeegee to expel any air-blisters, let it dry and it will be found to adhere firmly to the glass.

It is perhaps unnecessary to state that one should have a print from the negative as a guide to retouching. Use a very soft pencil and go over the negative, working up detail in the shadows and studying the progress of the work by looking through to the light and by taking an occasional proof. After detail is well worked up go over the paper with a crayon stump, blending the lines and edges, and softening the work if in places it is too heavv. If the retouching is not satisfactory the pencilings may be removed from the paper by using a "kneadable rubber" such as is used by artists. This is so soft that it does not ruffle or tear the paper.

If one chooses a varnish instead of the paper an excellent formula is made as follows: Forty-five grains of gum-sandarac, ten grains of gum-mastic, one fluid ounce of ether, three-fourths fluid ounces of benzole. Flow this over the glass side of the negative and when dry it can be worked on in the same manner as the paper. If it is necessary to remove any of the penciling dip a bit of absorbent cotton in alcohol and rub the places lightly. This will clear up the varnish without taking it off from the glass.

This varnish is very helpful in equalizing the printing of landscapes where the landscape parts print quicker than the sky and makes it impossible to obtain detail in the clouds. Flow the glass with varnish and dry. Then mix a little Prussian or indigo blue with water and brush it quickly over the landscape part of the negative. Soften the line between sky and landscape with powdered pumice-stone. A thin wash of blue retards the printing enough to enable one to get excellent detail in the cloud part of the picture.

When using the varnish for working on the glass side of the negative the pencil-marks may be blended either with the crayon stub, or else with powdered pumice-stone applied with the end of the finger and using a rotary movement in blending and softening the retouching.



HARVEST-TIME
J. H. FIELD
SECOND PRIZE — FARMING-SCENES
IN THE OATFIELD
GUST HORLIN
THIRD PRIZE — FARMING-SCENES



Tank Development

So much has been written about tank development that it would seem that every member of the Guild would be familiar with the subject; but if one has never experimented with this form of development there are several difficulties which are pretty sure to be encountered. The first is in the preparation of the developer. It must be thoroughly mixed. The best way to do this is to first mix and dissolve the ingredients, then add the required amount of water, stir well and let the solution stand for a few minutes. It should then be turned into the tank, or some other receptacle which will hold it, stirred again, then returned to the first receptacle and stirred, and finally it is ready for the tank. The pouring of the solution from one vessel to another mixes the ingredients more thoroughly than many minutes of stirring. Unless one takes this precaution the development will be uneven, owing to stronger parts of it acting on some parts of the plate and weaker parts on others, giving a streaked or mottled appearance to the negative which no after-treatment can eliminate.

The reason why a plate is rocked in a tray is to insure even development all over the surface of the plate, so it does not really matter in such a case whether the mixing is so thorough; but in a tank where the plate is left without moving until development is completed it is very necessary that the developer be evenly mixed. As a further precaution against uneven development in the tank, the plates may be first soaked in clear water. Cramer, the well-known plate-maker, advises this to be done when using tank development with Cramer plates.

Weak developer works more satisfactorily for tank development than the stronger, so it is a good plan to dilute the developer even more than the formula recommends. An hour in the tank results in better plates than a twenty-minute immersion, which is the time given for many formulæ. In preparing developer, therefore, when the time given is twenty minutes add half as much more water and prolong the development.

The pyro developer gives excellent results, but there is always a slight staining of the negative. Metol-hydro does not stain, and glycin is an ideal developer for tank development, as one may leave the plates for twelve hours without fear of staining.

Great care should be taken that the plates are not exposed to a strong light when getting them ready for tank development. They should be at some distance from the red light, should be covered while they are being soaked in water and the tank should be kept tightly covered during the development.

A little prevention is worth a pound of cure even in photographic work.

✧

He is risen! The man who offers to gamble for the community.

The Round Robin Guild Monthly Competitions

*Closing the last day of every month.
Address all prints for competition to PHOTO-
ERA, The Round Robin Guild Competition,
383 Boylston Street, Boston.*

Prizes

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the price won.

Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

Subjects for Competition

August — "At the Seashore." Closes September 30.

September — "General." Closes October 31.

October — "Vacation-Scenes." Closes November 30.

November — "Glimpses of Foreign Lands." Closes December 31.

December — "Self-Portraits." Closes January 31.

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January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.
 April — "Downhill Perspective." Closes May 31.
 May — "Sunlight and Shadow." Closes June 30.
 June — "Landscapes with Figures." Closes July 31.
 July — "Marines." Closes August 31.
 August — "In the Country." Closes September 30.
 September — "General." Closes October 31.
 October — "Scenic Beauties of America." Closes November 30.
 November — "Group Portraits." Closes December 31.
 December — "Flashlights." Closes January 31.

Awards — Farming-Scenes

First Prize: H. Y. Sümmons.
Second Prize: J. H. Field.
Third Prize: Gust Horlin.
Honorable Mention: A. B. Hargett, Charles K. Archer, E. W. Gibson, George Alexander, S. Tronccone, Louis Schreiber, Charles P. Abs.

The Forthcoming Competition

"GENERAL" is the subject for the September competition closing October 31. It is so wide in scope that we can say with the poet,—

"No pent-up Utica contracts our powers,
 But the whole boundless Universe is ours;"

for in this competition one may choose the picture that pleases him best, without regard to time, place or subject.

There are, however, several points which must be taken into consideration when selecting the print to send to the contest. First is the subject, whether it will appeal to and interest the majority of the Guild, or if it has only a personal interest confined to a few. Then there is the matter of technique. The negative must be of good quality, and from it must be made the best picture possible for the amateur to make, and the paper must be chosen for its fitness for the picture. The mounting is another point which helps in the judging of a picture. It must be of a color and texture of paper that harmonizes with or contrasts well with the color of the print. The artistic merit of the picture is also one of the points which receives careful attention from the judges, so one must strive to make the picture as artistic as possible.

In sending a print to this special competition one must consider whether the picture will be interesting to an observer who has never seen the special person, scene or objects which have been chosen for the picture. If the figure is a mere photograph of some person taken without regard to artistic merit, treatment of subject—"just a photograph of some one"—then the chances are that the judges will not include the picture in the list of possible prize-winners. If, however, the picture has an interest or is artistically treated so it attracts one, though he may not know the original, then the picture stands a chance of winning a prize.

The same rule applies to landscapes. The picture is one which must attract the beholder though he has never seen the locality pictured. It must be beautiful as a picture, and it must be interesting in itself, instead of having a local interest for one familiar with the locality where it was taken. Pictures of familiar haunts are interesting because one knows and loves the place depicted, but the scene or the place itself may have no artistic value—the element that appeals to the persons unfamiliar with the original.

In one of our recent contests a picture was sent in entitled "A Country Road." This picture was of interest to any one who had seen a similar scene. The point of view was chosen so that the road was seen winding across a level and ascending a hill, where it disappeared over the top. The picture conformed to the rules of art, was beautifully printed and mounted, and as evidence that it was liked and admired the artist has many requests for a copy.

In former numbers of PHOTO-ERA suggestions have been given on landscape-composition, and at present there are in each number simple directions in the rules of composition. One of the articles on composition was entitled "Setting a Landscape." Attention was called to a stage-setting where each article introduced had some special reference to the rest of the objects, and it was suggested that the same idea be applied to the "setting" of a landscape picture. The setting of the horizon-line was one point to be considered. This must be "set," either above or below the center of the picture, owing to the trick of the eyes to see the scene cut directly in half by a horizon-line that runs across the center of the picture; and the same effect is produced where a perpendicular line, like a tree for instance, cuts the picture in half the other way.

If the horizon-line is set below the center, then in order to secure perspective and lend variety one must choose the time when there are plenty of clouds in the sky. If above the center, then the horizon-line should be more or less broken by objects rising above it.

Having "set" the horizon-line in its proper place, the next point is to see that the lines of the objects are in their proper places, and one will do well to refer to this department of the June number of PHOTO-ERA, which speaks specially on the placing of lines.

If the landscape is "set" in the middle of the day it will be lacking in contrast, owing to the shadows being directly under the objects; but if "set" in the morning or evening, when the shadows are long, one gets vigor, good perspective and interesting details.

If the landscape is "set" with figures in it one must take care that they are at such a distance from the camera as to harmonize with the surroundings, instead of looming large in the foreground.

Before attempting anything in the way of picture-making decide what sort of a picture is desired, then bend every effort to secure the best results.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

MORRIS FELTON.—Color-value in a photograph means not a correct photographing of the color itself, but its light or dark appearance as it appears to the eye. For instance, yellow looks light to the eye and "takes dark" in the photograph, hence the inability to judge whether the film was yellow or some darker color. The orthochromatic plates are sensitized with a chemical which makes the rendering of the true color-value of the article correct. Hence their use is to be commended for flower-studies, for copying paintings and for portraits where colored gowns are used.

D. L. T.—Your developer is too strong, therefore the lack of contrast in your negative. It developed too quickly to allow good gradation of lights and shadows. Putting a plate into a strong developer is like putting cake-dough into too hot an oven. The heat prevents the gradual rising and working of the ingredients and the cake is a failure, and the same thing is the result with too strong a developer with a negative — it works too fast to allow the desired result.

M. C. W.—Make lantern-slides from your small films by contact-printing. Use a slow developer and add a little acid to the fixing-bath to clear the film. Metol-hydroquinone is one of the best developers for lantern-slides. It does not stain, gives fine detail and excellent contrast.

JAMES DEMPSTER.—Rodinal is a concentrated solution of paramidophenol, and the makers claim that it is adapted to the development of any plate and any exposure by the addition of more or less water to the concentrated solution. Full directions for use come with the developer. For soft contrasts the developer is much diluted; for strong contrasts the proportion is one part rodinal to twenty parts of water. The image comes up very quickly with fine contrasts.

ELEANOR D.—To clean bottles from photographic solutions use spirits of salts mixed with an equal quantity of water for the white deposit made by the chemical. Finely-broken egg-shells put into the bottle with a strong solution of washing-soda will remove stains by shaking the bottle vigorously. Small shot may be used in place of the egg-shells, or, if neither is available, gravel will sometimes answer the purpose. If a bottle is cleaned as soon as empty it cleans easily, but if the chemical dries on the glass it is much harder to remove.

MAUD J.—You can fill plate-holders in the dark if you observe the way in which the plates are packed in the box. They are placed in pairs

film sides together, with a bit of paper separating them. When the box is first opened the first plate is film side down, the next film side up, and so on through the box. One can also distinguish the film side by the touch, the film side being much smoother and more slippery than the glass side. When a number of plates have been taken from a box it is a wise plan to write on the outside of the box how many remain; for then one can easily tell by the number left which side of the top plate is the film side. If there are an even number left in the box, the top plate will be film side down; if an odd number, then the top plate will be film side up.

FRED. V. C.—The monthly competitions for the remainder of 1909 and for 1910 are printed on a sheet of paper and sent out with the hand-books which contain the competitions for the past eighteen months.

ELLEN S.—To coat porcelain for blue-prints use the solution for blue-print paper. You can pour the solution over the plate or brush it over. The print is timed by making a trial print on blue-print paper, noting the time required to make a good print and then exposing the porcelain plate for the same length of time. Wash in clear water till the whites are clear and dry. Do not leave any length of time in the water.

BERTHA SEMLON.—The stop to use in landscape work is the largest one which will give good definition over the plate. The most artistic landscapes are not those which are microscopically sharp, but those which are softened enough to give form and detail to the objects and yet not permit one to distinguish the veinings of a leaf, for instance. We look at landscapes in masses of lights and shadows, and that is the effect to strive for in our landscape photographs — form, of course, and proper grading of light and dark.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"THE ENGAGEMENT-RING," W. C.—This is a picture of a young man placing a ring on the finger of a young woman. The couple are standing, and both apparently intensely interested in the action of the young man. The details of the picture show a fireplace, on the mantel of which is a row of books. Two chairs, one at each side of the fireplace, and a book dropped carelessly on the floor complete the details of the picture. This print is from an excellent negative; there are no very strong high-lights nor black shadows, but the whole tone of the print is soft and pleas-

ing. The criticism of this picture would be that the view shows only a small portion of one wall of the room, and consequently the picture has a flat appearance which would have been obviated if the camera had been so placed as to show two sides of the room. "In the Study," by the same artist, shows a young man standing by the fireplace reading a book. This negative, too, is well taken, but the same criticism is applicable to this picture. The figures in both pictures are well posed. The editor thanks the member who sent in these prints for criticism for his thoughtfulness in enclosing a stamped and addressed envelope for their return. Such care on the part of the sender saves the editor quite a bit of work.

"BORROWED PLUMES," F. D. A.— This picture shows a child of some seven or eight years of age decking herself out in her mother's gown and hat. This would be an admirable study if more care had been taken in the exposure, and in the lighting. The high-light on the child's face is very sharp and there is no detail and therefore the face lacks modeling. A shorter exposure and not so prolonged development would have given better results. It would be worth while trying the same subject again, and in making the second picture do not let the subject look at the camera.

"A MORNING DIP," B. F. D.— This picture shows two bathers playing in the surf at the seashore. The time of day has been well chosen, for

the lights and shadows on the water are beautiful, and the water seems to have motion, so clever has been the moment chosen for the exposure. In the foreground is a pile of flotsam and jetsam — seaweed, bits of boards, and part of a crushed dory — giving the proper emphasis to the view. The picture, however, has one great fault: both of the bathers are staring straight at the camera and their faces are, as the novelists say, "suffused with smiles," which in this case have broadened into hideous grins. One of the rules every camerist should adopt is to refuse to take a picture of a subject who persists in staring straight into the camera; but if he does take such a picture, then reserve it for the individuals interested.

"THE OLD HOMESTEAD," W. L. O.— This is a beautifully-taken picture of an interesting subject. The surroundings, as well as the old house, have been included in the picture and a very artistic photograph is the result. A specially happy note in this picture is the figure of an old man leaning over the gate and gazing down the road which winds off at the left of the picture and is lost to sight in a bit of woodland. The picture would be improved by printing clouds in the sky, or shielding the landscape part of the print until the clouds have been printed deeper. This picture would make a good enlargement in sepia tones.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast Seed 23
Class 1	Eastman Extra Rapid	Class 4
AnSCO Film, N. C. and Vidil	Hammer Extra Fast	Stanley Commercial
Cramer Crown	Hammer Extra Fast Ortho	Class 5
Cramer Crown Non-Halation	Hammer Non-Halation	Cramer Commercial
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Defender Non-Halation Plain
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Ortho
Cramer Isonon	Seed C. Ortho	Defender Ortho Slow
Cramer Trichromatic	Seed L. Ortho	Hammer Slow
Defender King	Seed Non-Halation	Hammer Slow Ortho
Defender Ortho Inst.	Seed Non-Halation Ortho	Class 8
Eastman N. C. Film	Standard Extra	Cramer Slow Iso
Ensign Film	Standard Orthonon	Cramer Slow Iso Non-Halation
Hammer Special Extra Fast	Class 1 1/2	Class 12
Imperial Ortho Sensitive	Lumière Ortho A	Defender Queen
Imperial Orthochrome Special Sensitive	Lumière Ortho B	Seed Process
Kodoid	Lumière Panchro C	Class 100
Magnet	Class 2	Lumière Autochrome
Premo Film Pack	Cramer Medium Iso	Lumière Red Label Slow
Seed Gilt Edge 27	Cramer Medium Iso Non-Halation	
Standard Imperial Portrait		
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For September

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of September on any fine day between 11 A.M. and 1 P.M. when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8 is used; also from 8 to 9 A.M. and 3 to 4 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used; also from 7 to 8 A.M. and 4 to 5 P.M. For f/5.6, U. S. No. 2, give half. From 9 to 11 A.M. and 1 to 3 P.M. increase the exposure one-third.

SUBJECTS	PLATES (List on Opposite Page)											
	Class ½	Class 1	Class 1¼	Class 1½	Class 2	Class 2½	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds	1/1024	1/512	1/400	1/320	1/256	1/200	1/128	1/100	1/80	1/64	1/40	1/5
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds	1/512	1/256	1/200	1/160	1/128	1/100	1/64	1/50	1/40	1/32	1/20	2/5
Open landscapes without foreground; open beach, harbor and shipping- scenes; yachts under sail; very light- colored objects; studies of dark clouds	1/256	1/128	1/100	1/80	1/64	1/50	1/32	1/25	1/20	1/16	1/10	4/5
Average landscapes with light fore- ground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes	1/128	1/64	1/50	1/40	1/32	1/25	1/16	1/12	1/10	1/8	1/5	1 3/5
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides, well-lighted street scenes; persons, animals and moving-objects at least thirty feet away	1/64	1/32	1/25	1/20	1/16	1/12	1/8	1/6	1/5	1/4	2/5	3 1/5
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark ob- jects; groups outdoors	1/32	1/16	1/12	1/10	1/8	1/6	1/4	1/3	2/5	1/2	4/5	6 2/5
Portraits outdoors in the shade; very dark near objects	1/16	1/8	1/6	1/5	1/4	1/3	1/2	2/3	4/5	1	1 3/5	13
Badly-lighted river-banks, ravines, glades and under the trees	1/8	1/4	1/3	2/5	1/2	2/3	1	1 1/3	1 3/5	2	3 1/5	26
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	3/8	3/4	1	1 1/5	1 1/2	2	3	4	4 4/5	6	10	77

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

OUR ILLUSTRATIONS

OUR frontispiece is by J. E. Mock, photographer of women. Along lines similar to his former work, although, perhaps, more striking, and presenting greater contrasts of light and shade than hitherto, the general style is one he has made his own and which has won him many patrons among the fair sex. At the Rochester Convention this print was one of the features of the exhibition. Data: 3 P.M.; fair light; 20 x 24 camera, Tessar lens with largest stop; 5 seconds' exposure; Standard Imperial plate; pyro developer; Royal Nepera print.

"The Flock," by F. C. Baker, is one of those rare subjects in which almost absolute unity exists. Nothing seems to detract from the sheep themselves, and the curve of light formed by them in conjunction with the path is very graceful. Another pleasing note is the location of the horizon-line, its contour and the sky above it, which is quite in harmony with the scene. Much is left to the imagination in this picture, yet every necessary element is suggested sufficiently to make it well understood. It is one of those instances where unimportant objects have been subordinated to those essential. Although following closely the best canons of art the picture is perfectly natural and absolutely logical. In this connection it is all the more interesting when it is known to have been built up by multiple printing from four separate negatives: sky, distance, sheep and foreground. All were made on $3\frac{1}{4} \times 4\frac{1}{4}$ Kodak film. A combination print was made from these on Solio paper and then an enlarged negative was prepared by copying.

Delicate and dainty, like most of the work of Japanese artists, "A Coquette," by T. Kajiwara, was much admired at Rochester. The look of pleased yet repressed mischief in the eyes is not an easy expression to record by photography, but it has been done here so successfully that the achievement is all the greater. Subdued highlights and filmy drapery do their share in telling the little story, and the poise of the head is also important. No data are available.

Simplicity is the key-note of B. V. Sweet's landscape of the poetic title. Just a winding brook, an old, leaning tree, and its reflection in the water make a picture which, treated to bring out the pictorial possibilities, has resulted in an eminently successful and beautiful photograph. As interest centers in the foreground, the high horizon is quite appropriate. Data: 7.30 A.M.; fair weather; 5 x 7 camera, Planotograph lens, f/16; 1-5 second exposure; Stanley plate; Argo developer; contact positive and enlarged negative on Stanley plates; Azo B print.

"The Woodland Brook," by Edmund H. Royce, brings back to city people many pleasant memories of the vacations just spent in the country. There is no sweeter music in summer than

the sound of a little waterfall, and Mr. Royce has treated his subject so well that we can almost make ourselves believe we hear it. The effect of motion in the water has been caught especially well. Data: 10 A.M.; sunlight; $3\frac{1}{4} \times 4\frac{1}{4}$ camera, R. R. lens, 5-inch focus, f/11; 1-5 second exposure; Eastman film; Edinol developer; 8 x 10 enlargement on Special Carbon Velox.

Pure, legitimate photography never had a more potent advocate than the portrait of Dr. John Green, by J. C. Strauss, which created so much favorable comment at the Rochester Convention. It is at once a characteristic likeness and a work of art. As a piece of photographic workmanship it stands practically unchanged, just as the lens produced it, proving as a fallacy the necessity for any considerable amount of work upon the negative before printing, provided posing and lighting have been gone about in the proper way by one who thoroughly understands cause and effect in the studio. The pose is thoroughly natural and the hands an important element of the characterization, while the lighting is truly wonderful. In the absence of Mr. Strauss from his studio no data are available.

F. A. Waite has caught the spirit of that wonderfully beautiful sheet of water, Lake Winnepesaukee. His photograph reproduced here is of Mark Island, one of over two hundred little bodies of land which make it seem, when in a boat, as if one might go ashore at any moment, yet which are separated by deep channels, so that the entire length of the lake, nearly thirty miles, is navigable by large steamers. This little print is interesting chiefly as a study in tones and as an example of the benefits of a ray-filter. Data: May, 9.20 A.M.; cloudy; 1-5 second with Burke and James 7-times filter; 3 A Kodak with Tessar lens Series II., f/16; Kodak film; Velox print.

Among the few men in this country who are doing marine work worthy to be compared with that of F. J. Mortimer in England may be named R. L. Sleeth, Jr. Several of his recent successes have been much admired in the last few issues of PHOTO-ERA, and we are pleased to present this month a beautiful study of contending forces entitled "The Breaker." The print is everywhere full of motion, and that frequent effect of frozen spray seems to have been eliminated. The rock could have been grayer in tone to good advantage, but this is our only criticism. Data: May afternoon; medium light; Cooke lens 4 x 5, $6\frac{1}{2}$ -inch focus; 1-100 second exposure; Seed 26 x plate; pyro developer; enlarged negative; direct black platinum print.

N. Brock's admirable portrait study has been well named "A Southern Beauty," for it is a typical feminine type of the South. Mr. Brock's portraiture is always distinctive and this is no exception, although to our way of thinking the

high-lights have been worked up too strongly, giving the face almost an oily appearance. The drapery is well rendered and the hands do much to improve the general effect. Data: July, 5 P.M.; fair day; Voigtländer & Sohn Euryscope Series 4, No. 7, 24½-inch focus, f/8; 8 seconds' exposure; Seed 26 x plate; pyro-soda developer; Angelo platinum print.

"The Peasant Girl," after the painting by Camille Bellanger, is reproduced by courtesy of *The Picture and Art Trade*, Chicago, U. S. A. The original painting was shown at the French Salon of 1908, and is regarded as an important addition to the many fine portrayals of beautiful peasant girls. The artist has succeeded in showing, amidst rural surroundings, all the charms of grace and beauty possessed by the French country girls. It is well to note the importance of the background and its treatment by the artist. It is an admirable example of perspective, and the manner in which the figure is relieved against the surroundings without improperly repressing detail should be studied by pictorialists in general. A notable feature of the figure is the discreet treatment of the flesh-tints and the modeling in the white parts of the costume and the apron, with its many folds.

Albert G. Smith has been quite successful with marines and scenes about the beaches. "Haying on the Marsh" is one of his best efforts. It is simplicity itself, and therein lies its chief charm. The leading lines, location of the principal object and the general tone of the whole effect are good. It was a happy chance which dictated that the horse should be white, because a bit of snap is thus introduced, and at the same time interest is centered upon him as being the chief actor in the scene. Data: 10 A.M.; sunlight; R. R. lens, 6-inch focus, f/8; 1-100 second exposure; Cramer Inst. Iso Plate; Amidol developer; bromide enlargement from 3¼ x 4¼ plate.

Calm and peaceful is the scene by O. B. Judson entitled "The Trees by the River." It is the sort of picture which tells its own story easily and directly, making a strong appeal to those who love nature. Contrasted light and dark measures with the decorative radiating forms of the trees provide the chief elements and have been well handled. Data: 4 P.M.; bright sunshine; Bausch & Lomb lens, 7-inch focus, stop 128; ½ second exposure; Eastman film; pyro developer; very large bromide enlargement in sepia.

Frederick J. Ball contributes one of the best examples of high-speed work we have seen for some time past. "The Athletes" represents a one-foot pitch, one man being in the act of dropping to the ground, the other still in the position assumed when pitching his companion. The picture is composed better than athletic scenes usually are, but its chief quality is the remarkable amount of detail, gradation and softness secured with so short an exposure. Data: 1 P.M.; bright sun; 5 x 7 Goerz Anschutz camera; No. 2 Goerz Dagor lens, 7-inch focus, f/6.8; 1-1000 second exposure; Hammer Special Red Label plate; pyrometol tank development; gaslight print.

"A Good Story," by Melvin H. Sykes, was one of the favorites at the Rochester Convention. Thoroughly unconventional in conception, it was still quite natural, spontaneous, and, therefore, distinctly refreshing in contrast with the more ordinary examples of portraiture shown. It is unfortunate that at least some suggestion of a seat was not retained. No data could be had in time for publication.

The Monthly Contest

ALTHOUGH a considerable number of prints was submitted for the Framing-Scenes Competition, the total was not so great as it often is, yet the few prints which won distinction are, undoubtedly, of greater artistic merit than is usually the case.

The first prize went to H. Y. Simmons for a subject entitled "The Potato Diggers." While severely simple and making no pretense to grace or beauty the print appeals strongly to the imagination and presents a humble but familiar scene of peasant life which is sure to be appreciated by those who have traveled abroad. It is a pictorial utterance which evinces feeling and a good grasp of composition and photographic technique; none but a person of creative genius could have conceived or executed it. We regret that no complete data are available. The print, however, is a dark brown carbon on a rough support and evidently made from an enlarged negative, either glass or paper.

"Harvest-Time," by J. H. Field, winner of the second prize, is notable chiefly for its simple directness and beautiful atmospheric quality, characteristic of late autumn days. There is no obtrusive feature in the picture which does not help to tell the story. Both the figure and the stocks of corn are well placed, and the variety of spacing between the latter is very agreeable. Data: 6.30 A.M.; dull and smoky; 5 x 7 camera, rear half of R. R. lens used wide open; 15-inch focus; Igento light-filter; 2 seconds' exposure; Cramer Medium Iso plate; pyro developer; sepia platinum print.

Gust Horlin was awarded third prize for "In the Outfield," a very interesting genre with a suggestion of Europe about it. We do not know whether this was a chance arrangement of figures or a specially posed effort. In either case the surroundings and placing of figures are almost ideal. The one false note is one of value only: the dress of the woman at the right is a trifle too high in key, and thus attracts attention from the man with the scythe, who should stand out supreme. It is a defect easily remedied. Almost a stereoscopic effect is produced by the clearly-marked planes which are indicated by the location of the figures, the nearer trees, the far-stretching field and the trees in the distance. The sky also serves to throw the trees into silhouette and give a subdued interest to the background. Data: 3 P.M.; faint sun; 5 x 7 Graphic camera; Goerz lens, f/8; 1-5 second exposure; Lumière Blue Label plate; pyro developer; platinum print toned with mercury.

PHOTOGRAPHIC PATENTS

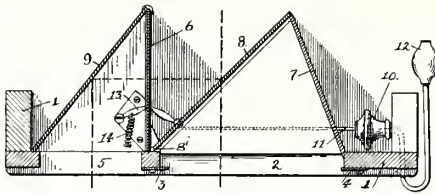
Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

June 8, 1909, continued

924,088. COMBINED SHUTTER AND FINDER FOR PHOTOGRAPHIC CAMERAS. JESSE A. MEISER, Eureka, Cal.

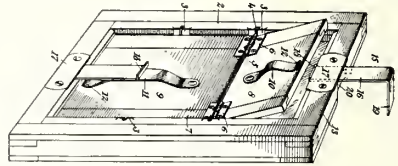
A shutter designed for portrait-cameras which enables the operator to watch the subject up to the moment of exposure with the plate uncovered in its holder, yet safely protected from the light. The horizontal section shown here represents the hack of a portrait-camera 1 in which there is an opening 2 to receive a plate-holder. Adjoining this is a finder-opening 5 large enough to permit observation of the full-sized image. Dividing the frame 1 between the plate-holder seat and the finder-opening is the ground-glass 6, which lies parallel with the side of the bellows-chamber of the camera, instead of crossing the back of the chamber



as is customary. Extending inwardly from the opposite side of the plate-holder seat is a fixed wall 7, the surface of which is made non-actinic. The ground-glass 6 and the wall 7 thus form between them an extension of the bellows-chamber of the camera, so that the image will fall upon a plate, when exposed in the plate-holder, which is to be fitted to the seat 2. The shutter which controls this extension-space is designated by 8. This shutter is a mirror, its reflecting-surface being on its inner side. Its outer surface is best made black properly to darken the plate-holder chamber behind it. The shutter extends diagonally between the inner edge of the wall 7 and the outer edge of the ground-glass 6, and lies at such an angle, when closed, as to reflect the image squarely to the ground-glass, as shown by the dotted line. It is hinged at its outer edge at 8¹ so that, in swinging open, its inner edge leaves the wall 7 and the shutter opens to a position approximately parallel with the ground-glass. Extending from the inner edge of the ground-glass 6, diagonally to the outer edge of the finder-opening 5, is a second mirror 9. The angle of this mirror is such as to reflect the image from the ground-glass backwardly to the eyes of the operator, as shown by the dotted line. Any suitable means may be provided to operate the shutter 8, such as rubber bellows 10 within the frame, connected by a push-rod 11 with the lower edge of the shutter. A pneumatic hand-bulb 12 is suitably connected with the bellows 10. The operation of this bulb opens the shutter, with a varying speed depending on the pressure. The shutter is closed by a toggle-lever 13, affected by a spring 14.

924,327. PRINTING-FRAME. CHARLES DOW. Assignor to George Murphy, Inc., New York City.

There is no tendency to get print and negative out of register with this frame when one end is opened for examination. Hinge-plates 3 are provided with grooves 4, into



which the ends of the hinge-pintles 5 project. As there is a set of these plates at each end of the frame, the hack may be inserted with its larger portion at either end. Still further to preserve perfect register, a novel clamping-device is provided, consisting of springs 10 and 11 attached at one end to the hack, and over which the shoes 15 are adapted to slide under the guide-plates 17.

June 15, 1909

924,947. PHOTOGRAPHIC ROLLER-BLIND SHUTTER. JOHN E. THORNTON, Altringham, England.

The shutter may be designed to work in front of the plate adjacent to the focal plane, close behind the lens, in front of it or between its two combinations. In any case the principal feature is that the blind will travel alternately or successively in either direction for exposure, and is thus set after each exposure without uncovering the plate.

925,159. MOVING-PICTURE MACHINE. JAMES A. CROSBY, Assignor to Selig Polyscope Co., Chicago, Ill.

The object of this invention is to provide means for securing an intermittent rotation for the feeding-drum of the moving-picture machine. In mechanism of this kind it is customary to feed forward the film in unison with the rotation of the shutter, and in the present invention an intermittent rotation is applied to a pair of spur feeding-wheels, the teeth of which are adapted to engage with the holes in the margin of the film, thus carrying the film forward smoothly and uniformly without objectionable vibration. A lock is also provided to hold the feeding-wheels rigid during the interval between each forward movement, thereby securing a positive movement of predetermined length and a sharp arrest of the film thereafter.

925,326. LENS-SHIELD FOR MOVING-PICTURE MACHINES. GEORGE J. GILMORE, Chicago, Ill.

This consists of a truncated conical tube of metal extending from the lens-tube almost to the light-carbons, and is provided with a slot through which a sheet of transparent material such as glass or mica extends and covers the opening in the end of the cone. In this way the lens is protected from breking as a result of intense heat.

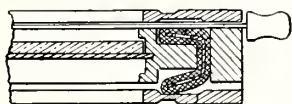
925,338. DAYLIGHT DEVELOPER. ALFRED HAMBURGER and HEINRICH IMHOF, Vienna, Austria-Hungary.

An appliance for developing dry-plates, consisting of a vessel formed of two parts, each provided with red glass surfaces, the parts being connected by light-proof material and capable of being fixed together at a distance from each other with a liquid-tight glass plate between. Attached to the two parts are holders, with flexible tubes for filling, which contain the developing and fixing-fluids, and these holders are in communication with either of the said parts through a light-proof aperture, so that the plates can be passed into or withdrawn from either of the parts.

June 22, 1909

925,895. PHOTOGRAPHIC PLATE-HOLDER. JOSEPH GODDARD, Assignor to Seneca Camera Mfg. Co., Rochester, N.Y.

An improved light-excluder, to prevent the entrance of light into the holder through the slot for the shutter-slide, is the principal feature of this holder. It consists, as shown, of a U-shaped spring of thin, resilient metal extending the



width of the holder and being covered with an envelope of felt. In order to increase the efficiency of the spring so as to prevent the entrance of light into the holder while the edge of the slide is being introduced or removed, or because of warping or other unevenness of the surface presented, a longitudinal row of perforations is cut in the spring-members. This removes sufficient metal to weaken the spring and afford a delicate elasticity at every point in its length.

925,933. MOTION-PICTURE APPARATUS. JAMES G. MEREDITH, Lynchburg, Va.

A means to produce synchronous operations of a phonograph and moving-picture machine, effected by connecting the two with shafting and bevel gears. When it is desired to disconnect the phonograph the gears nearest the operating-crank can be thrown out of mesh by a device provided.

925,934. PRINTING-FRAME. BENJAMIN D. MILLER, Wooster, O.

Special attention has been given to the ease with which the back may be opened for inspection of the print. Bow-springs, with both ends attached, are fastened to each section of the back, and these are held down when the frame is closed by spring-actuated, revolving latches on the sides of the printing-frame, which engage lugs on the bow-springs, limiting their range of motion. When the bow-springs are depressed the latches automatically revolve to an inactive position on the edge of the frame, thus permitting the back to be removed.

June 29, 1909

926,144. PHOTOGRAPH PRINT-WASHER. LINDOLPH M. SHEROW, Ossining, N. Y.

A portable, cylindrical vessel to be connected to the water-supply with a rubber hose and set in the washing-tray. Jet outlets are provided in the sides for projecting streams in

different horizontal planes between the top of the water and the bottom of the tray, thus keeping the prints separated. An angular jet from the top of the vessel strikes the surface of the water in the right direction to move it toward the overflow and thus hasten thorough elimination of hypo.

926,153. PHOTOGRAPHIC DEVELOPING-APPARATUS. CHARLES D. WALDRON, New York City.

A compact device for developing dry-plates one at a time in daylight, but which necessitates that the plate be changed from the holder to the developing-apparatus in a dark-room.

926,376. APPARATUS FOR MAKING AUTOTYPE PRINTING-BLOCKS. EUGEN ALBERT, Munich, Germany.

926,377. PROCESS FOR MAKING AUTOTYPE PRINTING-BLOCKS. EUGEN ALBERT, Munich, Germany.

926,380. PHOTOGRAPHIC WASHING-TANK. WILBERT A. AMON, Washington, Penn.

An automatic washing-apparatus that shuts off the water-supply when a certain level is reached, retains it for a predetermined time, empties the tank at the expiration of that time and renews the water-supply when the tank is empty. Provision is also made for introducing the water so as to produce a gyratory movement, and to supply a suitable guard for the exit-ports to prevent the prints from being carried along with the escaping water and thus choke the outlet, and to prevent contact of the negatives or prints with sediment which may collect in the tank.

926,495. PHOTOGRAPHIC CHANGE-BOX. PAUL KAEMMERER, Assignor to C. P. Goerz Optical Co., Steglitz, Germany.

The open end of the case 25 is inserted into the aperture 22 of the empty change-box so that a light-proof joint is made between the two receptacles by means of the guides adjacent to the aperture 22. The slide-shutters 27 and 23 are thereupon withdrawn, and also the abutment-slide 24.



The change-box is then held in such a position that the plates slide by gravity from the case into the box, the plate 14 being drawn back by means of the stud 18 in order to allow the entrance of the plates into the box. Fixed lateral frame-parts guide the plates, and the part 19 limits the movement of the latter. When the plates have entered the change-box the slide-shutters 23 and 24 are closed, the case 25 is removed and the box is ready for use. The plates are changed in the known manner by successively withdrawing and re-inserting the change-slide 2, so that plates are successively removed from the front of the pile and conveyed to the back. Screen 11 being unrolled from roller 10 when the change-slide is drawn out of the change-box prevents the light from getting access to the exposed plate contained in the hollow of the change-slide. When the change-slide is thereafter pushed back into the change-box screen 11 is wound up again, in this way allowing the exposure of the plates contained within the change-box. The emptying of the change-box is much like the charging.

926,523. PHOTOGRAPHIC FILTER. ERNST WANDERSLEB, Assignor to Carl Zeiss, Jena, Germany.

The object of this invention is to obviate the difficulties hitherto experienced in accurate focusing through a yellow screen occasioned by Autochrome and other plates which must be placed in the camera glass side toward the lens. Instead of having the effect of a homogeneous plano-parallel plate, this new filter acts as a weak dispersive lens, by virtue of one or several external surfaces being spherical. As the filter-lens acts in cooperation with the objective, the focal length of the latter is, as it were, increased a little, which increase corresponds to the rearward displacement of the sensitive surface, due to the thickness of the glass plate.

926,553. AUTOMATIC PRINTING-FRAME. GEORGE S. EDWARDS, Osceola, Penn.

It consists of a back and front hinged to the body, and means for automatically throwing open the back when released and holding it thus so that the print may readily be removed.

926,656. PATTERN-PLATE FOR REPRODUCING DESIGNS AND THE PROCESS OF PRODUCING THE SAME. JOHN JACOBSON, New York City.

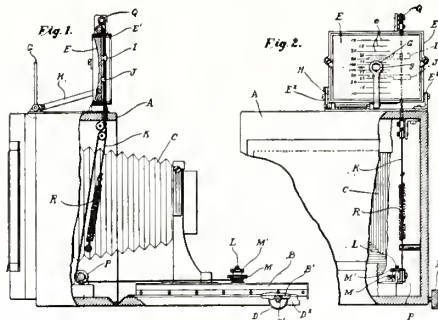
926,662. MAGAZINE PLATE-HOLDER FOR PHOTOGRAPHIC CAMERAS. ROBERT J. and JAMES A. LONDON, Fredericktown, Mo.

A plate-holder for cameras capable of carrying a number of sensitive plates which may be exposed one at a time and moved successively out of the field of the lens into a light-proof receptacle, and after all have been exposed the receptacle may be detached from the plate-holder and carried to a suitable dark-room for development.

July 6, 1909

926,912. PHOTOGRAPHIC CAMERA. GUSTAV VOGT, New York City, and GUSTAV DIETZ, Yonkers, N. Y.

The invention relates to approximate focusing by determining the angle which familiar objects about five or six feet high — such as men, horses or windows — subtend at varying distances from the camera. A direct-sight finder E

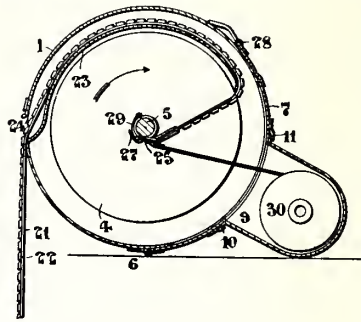


of the ordinary type is graduated with horizontal lines *e* so spaced according to the laws of optics that any of the standard objects viewed through the sight-orifice *g* will indicate by matching to the several lines what the distance is between the camera and the object selected. Two movable indexes *I* and *J* are connected by the cord *K* to the extension-bed

B in such a manner that when the lens is moved outward the indexes will be correspondingly moved apart and when the lens is moved inward the spring *R* draws the indexes together again. In use the graduations *e* are not essential; still less important are the figures recorded near them. All that is necessary is to open the camera, unfold the finder and, looking through the eye-piece *G* at the view, to move the lens-board to such a position that the indexes *I* and *J* come in line of sight with the head and feet of a man, horse or other object which may chance to be at the proper distance, when the lens will be automatically placed in correct focus ready to make the exposure. The operation is purely mechanical except in cases where the standard object depended upon is not quite in the same plane as the principal part of the view to be depicted, when a little good judgment must be exercised.

927,155. DAYLIGHT DEVELOPING-APPARATUS. JAMES W. MEEK, London, England.

The object of this invention is to avoid the use of the ordinary cumbersome transfer-box made use of in developing roll-films and to provide a compact container *I* with a



detachable spool-box *9*, which is adapted to receive the exposed spool direct from the camera, and from which the film is wound into the container at the same time as the apron, the spool-box being then removed so as to enable the container, enclosing both apron and films, to be placed bodily into a developing-tank. In use the end of the apron *22* is first passed into the casing *1*, ready to be attached to the spindle *5*. The exposed film on its spool *30* is then placed in the spool-box *9* and the latter is slid onto the door *7*, which is light-proof when closed. The door *7* is opened, the usual paper seal of the exposed spool is broken and the end of the black paper strip is passed under and clipped by a wire to the spindle *5*. The end of the apron is next attached to hooks *27* and the door *7* is closed, the parts assuming the positions indicated in the figure, whereupon the spindle *5* is rotated by one of the heads which project beyond the casing and the film and apron are wound onto the spindle. The spool-box *9* is then removed and the container *1*, with the film and apron therein, is immersed in the developing-tank, which is filled with any suitable developing-solution. The container *1* is raised and lowered once or twice to expel the air and insure proper access of liquid to all parts of the film, after which it is allowed to stand for a few minutes. It is then preferably removed, inverted and again inserted and allowed to remain for a sufficient time to complete development, after which it is removed, placed in a washing-bath or under a tap and then placed in a fixing-bath.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions
are solicited for publication

The Rochester Convention

WHILE it is true that there have been conventions held in Cleveland, Chicago, St. Louis, Washington and Boston which in point of attendance exceeded those which are being held nowadays, the Rochester Convention will pass into history as one of the most brilliant events of its kind. Owing to the success of state associations with their conventions, the national event does not draw the crowds it used to, but is growing yearly in importance, brilliance and prestige. The Rochester Convention was no exception.

The various educational, artistic and industrial features, as announced in advance, were faithfully carried out and created a decidedly favorable impression. The studio demonstrations, in themselves, attracted larger audiences than at Detroit, for the reason, probably, that they were conducted in a large and eminently suitable hall immediately adjoining the main auditorium, which was devoted to the industrial and art exhibits — both being under one roof. The lessons thus imparted in illumination and composition by such masters as Frank Scott Clark, A. F. Bradley, E. B. Core, Ryland W. Phillips, Gertrude Käsebier, F. M. Somers and W. H. Towles were extremely valuable. Little practical benefit accrued to the spectators, who, though profoundly interested and absorbed by what they observed, were more inspired than actually benefited. Moreover, the artists dispensing their methods of operation under the skylight were somewhat at a disadvantage, inasmuch as they failed to assign the reasons for their various notions in lighting and posing the model. This was to be expected, because these gentlemen are accustomed to work quietly in their own studios and rarely say anything even to the model. It is hoped, therefore, that, in future, the demonstrators in the school will train themselves in advance, so that they may explain as they go along. Many of the spectators were tempted to ask pertinent questions, but felt that they would get but scant replies. Great credit, nevertheless, is due to these gentlemen for the thoroughly painstaking and conscientious manner with which they publicly dispensed their methods of work. The various lectures and talks during the sessions, which were held in the auditorium of the Hotel Seneca — some distance away from Convention Hall — proved extremely interesting and profitable to those present.

As usual, the information handed out by the experts at the manufacturers' and dealers' exhibits in Convention Hall were of an extremely practical nature and were listened to with profound interest by a never-failing crowd of pro-

fessional workers. The manufacturers vied with each other in their efforts to impress the visitors with the importance of their products, and the very pick of their demonstrating-staffs was conspicuous by its presence at all hours of the day and evening — in Convention Hall, corridors, hotel lobbies, streets, restaurants; in fact, wherever there was room to stand and talk there were always eager groups to listen to the wise and practical words of these experts. It would be impossible to find a visitor who went away without having gleaned some information applicable to his business.

The great throng of over 2,700 visitors was attracted, very largely, by the fact that Rochester was conveniently situated and the center of immense manufacturing interests, those of the Eastman Kodak Company easily being first. This firm left nothing undone which could materially contribute to the entertainment of the visitors. The bounty of the firm was shown by providing an *al fresco* repast and free access to the numerous places of diversion at Ontario Beach, including free transportation both ways. The company entertained its guests — every person wearing the convention button or badge — at Kodak Park, conducting the host through the various buildings of its enormous factory, where could be observed the preparation of its many products. The employees were busy, and so well trained as to appear entirely oblivious to the presence of the thousands of visitors filing past them. One of the finest and largest military bands in the State dispensed high-class music, and refreshments were served under spacious and specially erected tents, as, unfortunately, although it did not succeed, a slight rain threatened to mar the pleasure of the vast throng. An incident worth mentioning in this connection was the spontaneous and enthusiastic cheering of the generous host, who mingled with the crowd in the most democratic fashion and was scarcely recognized because of his very modest attire. When the vast crowd assembled at Kodak Park was about to disperse, Fred Hammer, of the Hammer Dry-Plate Company, mounted a chair and, after paying a graceful tribute to the munificence and the uniformly cordial and democratic spirit shown by the host, called for three cheers for George Eastman.

The Association provided a ball at the Hotel Seneca, which was a very brilliant affair and on a larger scale than anything of the sort attempted at a photographers' convention. The Rochester photographers were not backward in their desire to express their cordial feeling towards the visitors. They provided a high-class musical entertainment at the Hotel Seneca, which was at-

tended by a very large and enthusiastic audience. The other manufacturers were by no means idle. The Bausch & Lomb Optical Company entertained the visitors at its factory one day during the session. The Seneca Camera Manufacturing Company and the Defender Photo-Supply Company joined hands in furnishing a very pleasant entertainment at Moerlbach Park. It is very pleasant to record the fact that *everywhere* the utmost cordial feeling prevailed. There was not the slightest note of discord to mar the wonderful harmony among all the members, manufacturers, dealers and employees—something which was not anticipated and which will be long and pleasantly remembered by all who were at the convention.

The array of industrial exhibits in Convention Hall was something worth remembering, although in scope and brilliance it may have been exceeded by previous conventions. It is fortunate that the Eastman Kodak Company decided not to exhibit here, but rather opened the doors of its factories instead, for it should be stated frankly that the accommodations of the hall were severely taxed. It is hoped that at the next convention the hall will be sufficiently large to meet all requirements. At Rochester, the hall, originally used for political and other public meetings, was not particularly adapted to the needs of a photographers' convention. The large semi-circular platform was occupied by the Artura Photo-Paper Company; and the pictorial display of the Eastman Kodak Company, as well as the regular convention art exhibit, were inconveniently though adequately placed in the gallery surrounding three sides of the hall. The front corridor, usually left entirely open for the convenience of visitors, was almost entirely occupied by the overflow of industrial displays; and one enterprising publisher had stationed his desk and attendant there, also.

It is, perhaps, not necessary to go into the utmost detail regarding the proceedings of the convention, except to give a brief résumé of its doings. The Executive Board is heartily to be congratulated upon its decision reached, during the convention, to throw open the art and industrial exhibits to the public—a matter which has been agitated by the editor of PHOTO-ERA for some time past. Thus, citizens of Rochester to the number of several thousand had an excellent opportunity to witness the present high development of the photographic art. The pictorial exhibit was large, varied, and interesting, many of the pictures being of exceptional merit and up to the standard of their authors. The picture-displays of the plate and paper manufacturers were, also, very meritorious; indeed, they are growing larger and better each year. The show of pictures on the numerous kinds and grades of paper by the Eastman Kodak Company was, as usual, quite extensive, highly interesting and convincing and was the center of considerable interest. In the matter of technical and artistic qualities and educational value it was not surpassed by the Association exhibit.

Officers for 1910

The following officers were unanimously elected: A. T. Proctor, president; G. W. Harris, first vice-president; Benj. Larrimer, second vice-president; J. H. C. Evanoff, secretary.

Milwaukee Has It Next

By a unanimous vote, and after scarcely any discussion, Milwaukee was chosen as the place to hold the next convention. The selection is an excellent one. Photographers, get ready for 1910!

The Executive Board

It is a pleasure to record the universal satisfaction at the prompt, courteous and satisfactory manner with which the officers performed their multifarious duties. President Barrows, Vice-President Proctor, Treasurer Dozer and Secretary Harris deserve the hearty thanks of the Association for their unsparing efforts to make this convention an event memorable in the history of American professional photography.

Association Annual

The committee in charge of printing, as well as Mr. J. C. Abel, who compiled the volume, deserve great credit for the attractive and distinctive appearance of *The Association Annual*. The matter presented is all interesting, particularly the history of the Association by years, and the entire contents is so arranged that information may be readily obtained. The illustrations and decorative schemes are particularly effective, but we believe the use of gray ink for printing advertisements was a mistake.

Testimonial to President Barrows

One of the pleasing features at the love-feast at Ontario Beach, given under the auspices of the Eastman Kodak Company, was the presentation to President F. R. Barrows of a costly gold watch, fob and chain. The recipient was taken entirely by surprise. It was genuine and not simulated, for the matter was conducted most discreetly and effectively by those having it in charge, and the presentation of the gift was made by the ever-ready and eloquent H. A. Collings.

The Right Spirit

As proof of the absolute democratic character and general fraternal feeling which prevailed at the convention and everywhere else where members were assembled, the following incident deserves to be recorded. During the evening when the public was admitted to the Convention Hall a citizen approached President Barrows in the lobby of the Hotel Seneca, stating his inability to gain entrance, as the admission-cards had all been given out and none could be procured. As he showed an earnest desire to visit the hall, Mr. Barrows promptly and quietly detached his official button from his coat and cheerfully handed it to the much-delighted citizen.

A Rara Avis

As the editor sat in the Seneca café he desired to use his fountain-pen, but found it empty. He asked one of the waiters present to have it refilled. On receiving it, promptly, he made a motion as if to hand the waiter a tip for his ser-

vice so promptly rendered, but he politely declined to be rewarded, saying that he was delighted to be of service. Experiences of this kind are rare, indeed, here or in any other part of the world.

An Incident

The fair representative of PHOTO-ERA at Convention Hall, Miss Myrtle DeForest, of Rochester, enjoyed extraordinary popularity. At Ontario Beach she was surrounded by seventy-five admirers; and, at ten o'clock, some of them procured a band of four pieces, which serenaded the young woman with popular airs. By her uniformly polite manner toward all she endeared herself to every one who approached her with reference to a subscription to PHOTO-ERA. To say that she was only moderately successful, in this respect, would be telling something contrary to facts.

Distinguished Visitors

The professional photographers of America were very well represented, as may be seen by the following list of eminent practitioners: Dudley Hoyt, T. Kajiwara, Theodore Marceau, E. B. Core, F. B. Somers, Ryland W. Phillips, A. T. Proctor, C. L. Lewis, W. H. Koehne, Will Killmer, J. E. Mock, Frank Rinehardt, A. F. Bradley, S. H. Lifshy, W. H. Towles, G. Holloway, Wm. H. Rau, E. E. Doty, Wm. H. Sykes, Charles Wallinger, J. E. Giffin, Karl Moon, Frank Moore, J. H. Garo, Morris Burke Parkinson, Wm. H. Partridge, Chas. Wesley Hearn, Frank R. Barrows, Wm. A. Webster, George H. Hastings, J. M. Bandtel, Geo. Nussbaumer, C. M. Hayes, A. M. Camp, Howard Beach, Joe Knaffl, Geo. Sperry, J. H. C. Evanoff, Geo. W. Harris, C. R. Reeves, Frank Scott Clark, L. A. Dozer, Geo. M. Edmondson, W. G. Thuss, H. M. Anschutz, C. J. Van Devanter and last, but not least, Gertrude Käsebier, Mary Carnell, Nellie J. Hall. Still, one missed the familiar faces of other luminaries, particularly Pirie MacDonald, Julius C. Strauss, Elias Goldensky and J. M. Steffens, who, for one reason or another, were unable to be present.

The Humor of It

On the day preceding the convention two ladies stole into the hall, where preparations were in progress. One of them, a blonde, was later seen in earnest conversation with a well-known traveling-man, both being seated in an obscure corner on the stage. A portion of their conversation was overheard, and is worth recording:

HE.— I do not think I have the pleasure of your name.

SHE.— Oh, I am the wife of Mr. ———.

HE.— What a lucky man he is!

SHE.— And are n't you lucky too?

The \$100.00 Award

The first prize of \$100.00 for the best invention or improvement in practical photography was awarded to J. A. Meiser, of Eureka, Cal., for his finder and shutter attachment. The device is a means of conveniently viewing the

image which is reflected from the lens by means of a mirror and a 5 x 7 ground-glass. Thus, the operator, after the slide to the plate-holder has been drawn, can view the picture, readily seeing whether the model has moved out of the focal plane or is ready to be taken. It is, obviously, a practical and very desirable adjunct to the studio camera.

The second prize, consisting of one complete set, eight volumes, in special leather binding, of the "Self-Instructing Library of Practical Photography," published by the American School of Art and Photography, Scranton, Penn., was awarded to O. C. Cortright for his printing-machine in connection with developing-papers.

A Mean Theft

One of the most pleasing souvenirs distributed at the convention was that of the Kilborn Photo-Paper Co., which consisted of a circular pocket-mirror with the reverse side containing a brand-new United States one-cent piece covered with celluloid, the whole being of superb workmanship. A box containing one hundred of these souvenir-mirrors was stolen from the closet adjoining the room devoted to the firm's exhibit. In justice to the reputation of the American professional photographer, it may be stated that the theft was attributed to some boys, many of whom, in the capacity of messengers, had access to the hall. This is the only regrettable incident of the kind at the convention.

Industrial Displays

As in previous years, we publish herewith a list, as complete as we could possibly make it, of every firm or individual who occupied space in Convention Hall. For general information we include the names of those who were present and assisted the firms represented.

AnSCO Company, Binghamton, N. Y. Display of prints on Cyko Paper; Standard E. A. chemicals and professional cameras. Geo. W. Tophill (vice-president), A. C. Lamoutte (secretary), W. B. Mussen (manager of New York office), C. H. Anthony (manager of St. Louis office), Geo. W. Leache and Mrs. S. E. Surdam. Souvenirs: lucky-coins and flowers dispensed by Mrs. Surdam, of Rochester, N. Y.

Art Novelty Co., Detroit, Mich. Oval frames. M. Higer.

Artura Photo-Paper Co., Columbus, O. Display of prints on Iris Paper on wall surrounding the stage, consisting of seven one-man shows — Edmondson, Hoyt, Steffens, Clark, Strauss, Rinehart and Benjamin. Dr. L. M. Early (secretary and treasurer), Schuyler Colfax (vice-president), M. A. Yauck (president); also E. C. Yauck (advertising-manager), T. C. Muller, C. L. Swingle, Frank Hearn, W. F. Thöde, Frank Wheelock, Geo. W. Murdock, C. Harry Daws and J. Otis Wheelock. Souvenirs: Pocket-map of Rochester, compass, set in front-cover, and ladies' folding fans.

Bausch & Lomb Optical Co., Rochester, N. Y. Exhibit of photographic lenses and other optical goods, reinforced by display of pictures, particularly enlargements, illustrating the high qualities of their lenses. An interesting feature was a search-light mirror of 30-inch aperture, valued at \$600.00. J. J. Bausch and J. O. Jarell, assisted by W. E. Zeller, A. K. Hawks, N. D. Parker, F. J. Koeth and H. E. Howe. Souvenir: Handsome pocket-magnifier in oxidized silver mounting.

Burke & James, Chicago, Ill. Manufacturers' agents. Photographic specialties, including innovations — New Rapid Printer, Ingento Stereoscopic Attachment for stereographs with ordinary one-lens camera. David James, assisted by George Macness.

Bridges Mfg. Co., Rochester, N. Y. Photographic mounts. E. N. Bridges, A. A. Twitt, Grant Wilson and E. R. Pollard. Souvenirs: fan embellished with portrait of President Frank R. Barrows.

A. M. Collins Mfg. Co., Philadelphia, Penn. Photographic mounts, folders, etc., of every description. Elaborate and tasteful display of artistic prints mounted on cards of various attractive styles. H. H. Collins, Jr. (secretary and treasurer); also H. A. Stone, assisted by a corps of aids.

G. Cramer Dry-Plate Co., St. Louis, Mo. Elaborate display of prints, negatives, positives and transparencies showing the characteristic qualities of the firm's various kinds of plates. Scientific photography (X-ray, astronomical, orthochromatic, etc.), illustrated by transparencies in monochrome and color. Cramer's Contrast-Filter Chart and Ray-Filters for all colors, in charge of Prof. Robert James Wallace. Gustav Cramer and Mrs. Cramer, E. R. Cramer, F. K. Hart, J. J. Sheets, Ed. Wright, Joe Dorella, H. F. Brown, Stewart Carrick. Souvenirs: scarf-pin of enamel set in pearls, a dainty gift; also pamphlet, "The Photographing of Color-Contrasts," by R. James Wallace.

Crown Optical Co., Rochester, N. Y. Photo-lenses and print-display. H. A. May and A. H. Hatmaker.

Defender Photo-Supply Co., Rochester, N. Y. In large room next the stage. Print-display on Argo Paper, white and buff, and Ampère Collodion Paper. M. A. Daly, C. H. Staunton and corps of ten assistants. Souvenirs: miniature United States flags in form of pins, lead-pencils, etc.

C. W. Engel & Co., Baltimore, Md. Portraits, bromide enlargements, water-colors, etc., for the trade. C. W. Engel.

G. Gennert, New York. Photograph materials, domestic and foreign, including Hauff's photo-chemicals, Ensyna films and Imperial plates, Chloralla Developing-paper. Maurice Gennert, assisted by C. S. Cantor.

J. W. Gillis Co., Rochester, N. Y. Picture-frames and mouldings. F. A. Ford.

C. P. Goerz Optical Co., Berlin, Germany. American agency: New York. Complete assortment of Anastigmat lenses — Dagor, Celor, Pantar, Syntor, etc.; also Trièder prism binoculars and Anschütz Cameras. Otto Goerz, August Stoëckicht and Fred. Schmid, assisted by Oscar Chouinard. Souvenir: celluloid memorandum-book.

Gundlach-Manhattan Optical Co., Rochester, N. Y. Photographic lenses of all kinds, including the Pancratic Telephoto Lens. H. H. Turner, H. M. R. Glover and C. F. H. Furman.

Hall & Benson, New York. Selling-agents of the Eastern Optical Co. (Double Anastigmat Lenses); the Keystone Paste Co. (Bright's White Paste); Fuest Brothers (photo-chemicals) and other firms. F. Harry Hall and Frank Benson.

Haloid Paper Co., Rochester, N. Y. Ucatone Paper demonstrated in connection with the McIntire Photo-Printing Machine. Carl Seager (president), assisted by E. H. Hough.

Hammer Dry-Plate Co., St. Louis, Mo. Print-exhibit in charge of L. F. Hammer and Fred Hammer, assisted by Cliff Reckling, C. Shafer, C. O. Towles and Geo. Eppert. Hammer's "Little Book," a short talk on negative-making, supplemented by formulae, hints, etc., was distributed among appreciative visitors.

John N. Heberger, Rochester, N. Y. New Quick Cloth Photo-Process for professional and amateur photography. Mr. Heberger.

Kilborn Photo-Paper Co., Cedar Rapids, Ia. Kruxo Paper. This firm occupied a separate room off the gallery, all the available floor-space being taken. Souvenir: combination pocket-mirror and lucky-coin.

J. E. Kohn & Co., Boston, Mass. Hand-carved frames. J. E. Kohn.

The Le Bo Co., New York. Le Bo Self-Toning Transfer Paper. A fine and complete line of samples on porcelain, glass, china, wood, etc. The hit of the convention. Theodore Liebert (proprietor), assisted by Mr. P. Mitchell.

J. L. Lewis, New York. Cameras and supplies. Display of prints on Seltona Paper. J. L. Lewis.

N. L. Lockhart Co., Rochester, N. Y. Picture-frames and mouldings. James Lockhart (proprietor), H. P. Crane and A. E. Royer.

Lumière North American, Ltd., Co., Burlington, Vt., and Lyons, France. J. E. Brulatur and staff of demonstrators. Lumière plates, films and Autochrome plates.

Mallinckrodt Chemical Works, St. Louis and New York. "M. C. W." Chemicals for medicinal, photographic and technical purposes. H. J. Baringer and A. C. Robertson.

Marks & Fuller, Rochester, N. Y. Photo-supplies studio accessories and backgrounds. Henry D. Marks and Wm. J. Fuller; also R. A. Smith.

McIntire Photo-Printing Machine Co., South Bend, Ind. Practical quick-method demonstrations in printing, toning and finishing the print. H. H. McIntire, E. H. Hough and Carl Seager.

E. B. Meyrowitz, New York. Sole American agent for Carl Zeiss Photographic Lenses. Full line of these lenses — Protar, Tessar, Planar, etc.; also 8-power telephoto lenses fitted to cameras with focal-plane shutter and miniature prism-finder. Display surmounted by six pillars of classic design, each surmounted by a model of a Carl Zeiss lens (Planar, Protar or Tessar). W. E. Duncan and H. M. Bennett.

Mirmont Photo-Paper Co., New York. Factory: Glendale, Brooklyn, N. Y. Mirmont Sepia Cold Development Platinum Paper. Burton J. Holcombe.

R. S. Peck & Co., Hartford, Conn. Artistic photograph mountings. R. L. Peck and C. E. Peck, assisted by O. E. Wagner. Souvenir: photo-engraving of Niagara Falls, tastefully mounted on Mittlemeage stock.

Photo-Products Co., Chicago, Ill. Exhibit of prints on Platona Papers.

Fred G. Quimby, Boston, Mass. Portraits in oil and pastel, including excellent likenesses of Morris Burke Parkinson and H. A. Collings. Mr. Quimby.

The Robey-French Co., Boston, Mass. Photographic supplies, pictures, picture-frames, etc. Large display of backgrounds and studio accessories. Harry D. Haight, assisted by Geo. A. McLaughlin.

Rough & Caldwell, New York. Backgrounds and accessories. T. G. Caldwell.

Seneca Camera Mfg. Co., Rochester, N. Y. Full line of cameras and several novelties, including The Seneca Penny Picture Outfit and the Seneca Film-Pack Adapter. F. K. Townsend, Lewis W. Weil. Souvenir: Indian baby poster.

Leo Shupe, Buffalo, N. Y. The Cordova Shop — leather frames. Mr. Shupe.

Jas. H. Smith & Sons Co., Chicago, Ill. Victor Flash Powder and photo-specialties. Filson's Flash Cabinet. Jay A. Smith.

A. A. Stone, Cleveland, O. Bromide prints and finished portraits.

Taprell, Loomis & Co., Rochester, N. Y. Photographic cards. W. A. Taprell, J. A. Cameron, F. L. Seyler and W. L. Harris.

Voigtländer & Sohn, A. G., Optical Works, Braunschweig, Germany and New York. Full line of photo-lenses — Heliar, Dynar, Collinear, Oxyn and Euryscopes; also opera and field glasses, prism binoculars and microscopes. Complete assortment of all-metal reflex cameras ready for use. Print-display demonstrating the qualities of the firm's lenses. Novelty: 8-power Extra Luminous Prism Binocular. Paul Kennitz (the American agent) and E. A. Taylor.

Willis & Clements, Philadelphia, Penn. Platinotype Papers. Fine pictorial display and new studio shutter. A. Parker and John Detrich.

Wollensak Optical Co., Rochester, N. Y. Lenses for every photographic requisite, particularly for studio-work; also Optimo shutters. H. C. Gorton, J. C. Wollensak, L. W. Weil and C. T. Troff.

W. O. Wood Mfg. Co., Philadelphia, Penn. Photographic card-mounts. T. G. Grace and G. W. McDougal.

Desks

J. F. Adams, successor to Butts & Adams, Buffalo, N. Y. Photographic materials. J. F. Adams, Will A. Hatch and W. G. Sherk.

Alexander Brothers Co., Pittsburgh, Penn. Photo-materials. Rall R. Javens and W. M. Neubaur.

Berlin Aniline Works new "Agfa" products for photographers' use, including the new "Agfa" Rapid Fixing-salts in three convenient sizes — a boon to the practitioner. George L. Barrows.

Chas. E. Coleman, Newport, Ky. Etching-tools for work on negatives, Mr. Coleman.

Courtright Photo-Printing Machine Co., Fort Madison, Ia. O. C. Courtright.

Earle Photo-Paper Co., Chicago, Ill. Karbo Print-flattener and Embosser. C. W. Earle.

Fowler & Slater, Cleveland, O. Photo-supplies. Specialties: Clutter Folding Stools, for studio-groups, P. & W. Baby-holder and Ingravo Printing-plates. H. M. Fowler and H. H. Slater; also G. P. Bard and R. A. Morrison.

A. N. Gaouette, Monson, Mass. The Gaouette Baby-hugger, for studio use. Mr. Gaouette.

A. Grothwell, New York. Mogul Photo-varnish and Mogul Repairing-compound. Mr. Grothwell.

Herbert & Huesgen, New York. American agents of the Steinheil Lenses (Steinheil & Sons, Munich, Germany). Special, at the convention, The Steinheil Unifocal, F-4.5. Chas. H. Huesgen.

B. S. Krupp, Saginaw, Mich. Ingravo Printing-plates. Mr. Krupp.

The H. Lieber Co., Indianapolis, Ind. Mouldings and picture-frames. Harry Schowe and Robert Lieber.

E. B. Michelman, New York. Art portfolios for photographers. A fine, artistic line. Represented by Mr. Michelman.

George Murphy, New York. Dealer in photo-materials and specialties and importer of Ross Lenses. Mr. Murphy and J. G. Lavender.

Norman Photo-Paper Co., Rochester, N. Y. N. H. Normington.

Reflex Camera Co., Newark, N. J. High-class Reflex Cameras, with or without lenses. Novelty: "Baby" $3\frac{1}{4} \times 4\frac{1}{4}$ Reflex Camera with new automatic lens-shutter, invention of L. J. R. Holst. L. E. Ter Meer and L. J. R. Holst.

Rochester Photo-Supply Co., Rochester, N. Y. General photo-supplies. Souvenir: Baseball indicator. Chas. M. Rowe.

Sargent Photo-Supply and Mfg. Co., Cleveland, O. Photo-cards and folders. H. Q. Sargent and A. A. Chilcote.

Sprague & Hathaway, West Somerville and Boston, Mass. Portraits in oil, water-color, pastel and miniature; also picture-frames, easels, mats, etc. Arthur H. Paul and F. B. Elwell.

Stanley Bros., Grand Rapids, Mich. Negatives for printing in backgrounds on dark effects. C. A. Stanley and Jack Stanley.

J. Sussman Photo-Stock Co., Baltimore, Md. S. N. Fischblatt.

Taylor, Taylor & Hobson, Leicester and London, England. American agency: New York. Cooke Lenses. J. Ronald Taylor, assisted by L. L. Kelsey.

Trier & Bergfield, New York. Photo-mounts. Messrs. Trier, Bergfield and Fred. Lochman.

Geo. H. Van Norman Art Co., Springfield, Mass. The Van Norman Picture-hanger, an ingenious, simple and practical device for attaching framed pictures to mouldings. Geo. H. Van Norman.

The Vote-Berger Co., La Crosse, Wis. Automatic Contact Printing-machine. W. S. King.

The Ware Automatic Photo-Printing Machine Co., Denver, Col. A. A. Bowbay (secretary of the firm).

Worcester Envelope Co., Worcester, Mass. Envelopes, Negative Pockets for photographers' use. Geo. D. Barber.

Yawman & Erbe Mfg. Co., Rochester, N. Y. Office files — the loose-card system. C. J. Kannevisher.

Photographic Journals

Abel's Photographic Weekly, Cleveland. J. C. Abel. *American Photography*, Boston. F. R. Fraprie. *Bulletin of Photography and The Camera*, Philadelphia, Penn. Frank V. Chambers, assisted by Miss Daisy Adams. *PHOTO-ERA MAGAZINE*, Boston. Wilfred A. French, assisted by Miss Myrtle De Forest. *St. Louis and Canadian Photographer*, St. Louis, Mo. *Wilson's Photographic Magazine*, New York. T. Dixon Tennant.

Popular Illustrated Lectures

MR. W. I. SCANDLIN, for many years identified with photography, particularly as editor of several photographic publications, has been for several years past deprived of the priceless gift of sight and has conceived the idea of turning to account his valuable experiences in photography. These he has embodied in a series of highly interesting and instructive lectures, which he is prepared to deliver under the title of "Artistic and Historic Gems of Early Photography." This includes the remarkable Prevost Collection, with many beautiful views in France in 1853, only fourteen years after Daguerre's discovery, and also a large number in New York City in 1856-57, without parallels in interest as early photographic records in New York. Mr. Scandlin's slides are of great beauty; also of artistic and technical excellence. It is hoped that the committees having in charge the entertainments of their clubs during the coming winter will remember Mr. Scandlin, who may be addressed at 414 Third St., Brooklyn, N. Y.

An Easy Money-Maker

It is amazing how many profitable sources of revenue remain unnoticed by the photographer. The photography of the occupants of the numerous sight-seeing automobiles, which tour large cities, is being quite generally exploited; for it yields excellent and instantaneous returns to the enterprising photographer. The occupants of these touring-cars are very easy to interest in pictures showing them seated in company with distinguished persons and doing the town, and are quite willing to pay twenty-five cents for two picture post-cards. The exposure is made before the start, and the finished product delivered at the conclusion of the trip.

A Curious Ailment

ONE of the most successful photographers in the East owes his prosperity to the habit of economy which he has practised since boyhood. When dry-plates were introduced he and his brother — the two being in business together — were among the first to use them. In those early days one dozen 8×10 dry-plates cost \$3.00. One day a member of the firm entered the store where he procured his photographic supplies, laid a flat package on the counter, asked that it be charged to his account and then went away. Soon after he left, the store was filled with sounds of great merriment, all caused by the message written on the outside of the package. It read as follows: "Contents: two imperfect dry-plates returned by Paxton Brothers — one cracked, the other poorly coated."

The New England Convention

THE Twelfth Annual Convention of the Photographers' Association of New England took place, August 3, 4 and 5, 1909, at the Mechanics Building, Boston, Mass. In point of attendance this event has been surpassed in previous years, and there are several reasons for the slim attendance this year, though none is due to any fault of the officers of the Executive Board, each member of which performed his duty conscientiously. President Webster and Secretary Hastings were conspicuous in their labors before and during the convention, and they deserve and received the heartiest appreciation for what they have accomplished. Quite a number of members attended the Rochester Convention, after which they were not interested in any other similar meeting. The average New England photographer cannot boast of profitable activity, of late; and unless something radical is done, the photographic business in this section of the country will not be improved. Visits to conventions are expensive, and those who are able to indulge in this diversion, however beneficial the results, are not as numerous as they should be. It is possible that certain innovations of a practical nature might create more enthusiasm in future conventions of the P. A. of N. E. In any event, it will require considerable hard thinking to devise means to bring together, say, five hundred earnest, representative photographers of New England. Let us hope that more luck will attend the efforts of the new Executive Committee, although it is impossible to see how a chief executive superior to Wm. A. Webster could be found. He and his brother-officers simply faced an unusually difficult situation. Nevertheless, this year's convention passed off without a hitch and may honestly be termed a success, even though the paid admissions did not exceed three hundred and fifty, of which about sixty were professional photographers.

The lectures and talks by Messrs. W. S. Lively, Alon Bement, H. A. Collings, S. M. Holman and others were admirable in their character and scope, and satisfied and benefited their auditors, limited though they were in number. The instruction imparted by J. H. Garo and Chas. Wesley Hearn was of as high a standard as similar work done at the National Convention, which is saying much. The display by members, reinforced by loan exhibits from the Rochester Convention, represented a high standard of ability, but it is to be regretted that the entries in the Competitive Class were so few. The single prints entered in the Grand Portrait Class possessed greater artistic merit than those shown last year. Perhaps, if a special effort were made another year, this class would receive contributions from more eminent workers throughout the country, for a solid gold medal is something worth striving for. The feature of a ball, which took place in Revere Hall and was strongly patronized, should be continued, for it always proves a great attraction.

Anticipating a slim attendance, the manufacturers did not exert themselves to make their usual brilliant displays, but what they offered was highly satisfactory. The following firms were represented by displays:

- Anso Co., Binghamton, N. Y. Cyko Papers.
- Artura Photo-Paper Co., Columbus, O. Iris Papers.
- Bausch & Lomb Optical Co., Rochester, N. Y. Optical goods and photographic lenses for every purpose.
- Bridges Mfg. Co., Rochester, N. Y. Photographic mounts.
- Curtis & Cameron, Boston, Mass. Harcourt Platinum Papers.
- A. M. Collins Mfg. Co., Philadelphia, Penn. Photographic mounts of every variety, style and shape.
- Defender Photo-Supply Co., Rochester, N. Y. Argo and Ampere Papers.
- Eastman Kodak Co., Rochester, N. Y., with their paper and plate divisions; also elaborate and beautiful print-displays transferred to Boston from the Rochester Convention.
- C. P. Goetz American Optical Co., New York City. Anastigmat lenses of various popular types.
- The Le Bo Co., New York City. Self-toning transfer paper.
- Mirmont Photo-Paper Co., Brooklyn, N. Y. Platinumpapers.
- R. S. Peck & Co., Hartford, Conn. Photographic mounts.
- Positope Co., Cleveland, O. The "Bromotype," or picture without a negative, being positive pictures made direct in the camera.
- Robey-French Co., Boston, Mass. Studio cameras, backgrounds and accessories.
- Sprague & Hathaway Co., West Somerville, Mass. Pictures for the trade; also mouldings and picture-frames.
- C. W. Shepard, Boston, Mass. Reflex cameras, Cooke lenses and all other makes of cameras, lenses and supplies.
- Tapprell, Loomis & Co., Rochester, N. Y. Photographic mounts and specialties.
- Ware Automatic Photo-Printing Co., Denver, Col.

Among the firms who had merely representatives, who were active in trying to procure business, were the following:

- Carter, Rice & Co., Boston, Mass. Photographic mounts for the trade.
- A. J. Lloyd & Co., Boston, Mass. Photographic materials and optical goods of every description.
- George Murphy, New York City. Photographic specialties of all kinds for the professional and amateur.
- W. E. Talbot, Schenectady, N. Y. The Print-in-Grounds.
- Willis & Clements, Philadelphia, Penn. Platinotype Papers.

The following photographic publications were also represented:

- Abel's Photographic Weekly*, Scranton, Penn.
- American Photography*, Boston, Mass.
- Bulletin of Photography*, Philadelphia, Penn.
- The Camera*, Philadelphia, Penn.
- PHOTO-ERA, Boston, Mass.

Among the New England photographers who competed for prizes are the following: W. R. Call, W. H. Caldwell, Whitman Studio, Chas. Wesley Hearn, Frank R. Barrows, Byrd Studio, E. F. Gay, Thompson Studio, J. P. Healey, M. H. Frommell, W. B. Davidson, Geo. Tingley, A. A. Marshall.

The prizes offered by the Eastman Kodak Co. for prints made on their papers were won as follows: first prize, on Aristo paper, was equally divided between J. H. C. Evanoff and the Thibault Studio. The prize for Angelo prints went to W. B. Davidson.

The Association prizes were won as follows: Grand Portrait Class, open to the world. A. A. Bishop, Newport, Vt. Regular Portrait Class. First, A. A. Bishop; second, Byrd Studios, Cambridge, Mass.; third, F. R. Barrows, Dorchester, Mass.

Genre Class. First, Thibault Studio, Fall River, Mass.; second, A. A. Bishop, Newport, Vt.; third, Katherine B. Stanley, Springfield, Mass.

Group Class. First, F. R. Barrows, Dorchester, Mass.; second, W. B. Davidson, Narragansett Pier, R. I.

Landscape Class. First, G. E. Tingley, Mystic, Conn.; second, W. H. Monahan, Hillsboro Bridge, N. H.

The loan-exhibits from the Rochester Convention were by J. C. Strauss, Howard Beach, Gertrude Käsebier, D. Rosser, E. B. Core, Pirie MacDonald, Knaffl Bros., C. L. Lewis, Elias Goldensky, George Sperry, Mary Carnell, C. M. Hayes & Co., E. E. Doty, A. M. Camp and Frank Moore.

The following officers were elected: president, W. F. Oliver, Baldwinville, Mass.; first-vice-president, F. E. Frizzell, Dorchester; second vice-president, E. L. Byrd, Cambridge; secretary, George H. Hastings, Haverhill; treasurer, S. M. Holman, Attleboro. The State vice-presidents are: J. Y. Mersereau, Chatham, N. B.; G. S. Gerry, Sanford, Me.; C. L. Powers, Claremont, N. H.; A. A. Bishop, Newport, Vt.; W. B. Davidson, Narragansett Pier, R. I., and J. P. Haley, Bridgeport, Conn.

At the last day's session the new officers practically pledged themselves to form a close alliance among the photographers, with the intention of getting more to attend the conventions. It is the hope of the Executive Board to establish other orders throughout the country and combine them under a national head.

Safe Transmission of Prints

OWING to the strong and steadily increasing demand for photographs, from various sources, thousands of prints are being transmitted by mail or express. As we have often pointed out, the only way to send them with positive safety is not to pack them in the familiar, flexible corrugated board. It offers no protection whatever. Nor is it desirable to resort to any of the numerous mailing-devices, which generally consist of only one sheet of cellular board, and are sold at stationers and photo-supply houses. Although extremely neat and plausible in appearance, they are a delusion and a snare. A slight blow or pressure during transmission is sufficient to damage seriously one of these fragile photographic mailers, together with its contents.

The best way is to procure cellular boards in sheets, two pieces of which, placed with the corrugations running at right angles to each other, offer a very safe method of sending photographs. Of course, the package can be reinforced, if desired, by one or more pieces of the same or similar stiff material.

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: GEORGE W. STEVENS, Toledo Museum of Art, Toledo, O.

Vice-President: JOHN F. JONES, 934 Ash St., Toledo, O.

Secretary: C. C. TAYLOR, 3236 Cambridge Ave., Toledo, O.

Treasurer: GEORGE W. BEATTY, 1629 Nicholas Bldg., Toledo, O.

Historian: WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

THE call for entry-blanks for the Sixth Salon has been exceptionally large, showing that that event is very prominent in the minds of American pictorialists. Requests have come from almost every State in the Union, and from many parts of Europe. Also, the demand for the Salon from Museums of Art and Camera Clubs is so great that the committee will be unable to care for all who want it.

The St. Paul Camera Club has come into the Federation.

Herr Gustav Mautner, 5 Obstgasse, Prague, Austria, has been appointed commissioner for Austria, and writes very hopefully for a fine collection from that country.

The Federation sent fifty-six entries to the Royal Salon, London, the work of Mary Lyon Taylor, William H. Phillips, R. S. Kauffman, G. W. Leach, Jr., W. H. Evans, Will D. Brodhun, Adam Kraft, John F. Jones, C. C. Taylor, R. L. Sleeth, Jr., and John Chislett.

California Camera Club

THIS flourishing organization is again located in the business heart of San Francisco, at 833 Market St., practically its old quarters prior to the fire of 1906. At the present time it has some of the best-equipped clubrooms in the United States, including a large assembly-hall, exhibit-room, two bromide-rooms for enlarging, a lantern-slide room and another for platinum and carbon printing; and a studio building on the roof will stand comparison with any professional gallery for size, equipment, suitable dark-rooms, etc.

On July 15 the club was favored with an instructive lecture and demonstration by Dr. H. D'Arcy Power on "Bromides in Two or More Colors," along the lines of his article in the May issue of PHOTO-ERA.

The Camera Club Print Exchange

THIS popular organization has just closed the most successful year of its existence, under the able management of Charles K. Archer, of Pittsburg. For the coming year Mr. S. S. Skolfield, of Portland, Me., will act as manager, and the exchange is to be congratulated upon securing his services.

Missouri Camera Club

THE Missouri Camera Club of St. Louis announces its removal from old quarters to a more commodious suite in the Euclid Building, McPherson and Euclid Avenues, a location central to the residence districts of the city.

Two spacious rooms have been thoroughly remodeled in adapting them to the requirements of the club. The walls of the main assembly-room have been furnished for exhibition purposes with burlap-covered paneling four and one half feet wide, at a convenient height. This finish has been extended to one wall of the second room. Floors are covered with American matting in pleasing harmony of shade with the walls. Furniture of mission oak lends an air of comfort and refinement.

The photographic equipment is excellent. A complete dark-room has been installed, with lockers for individual use, the equipment including a first-class enlarging-outfit. Every facility is offered for private work or demonstrations.

A stereopticon and screen are conveniently placed, and available for use at any time.

The rooms are well lighted, and it is proposed to install a complete studio outfit at an early date.

The club proposes to make the new quarters a center of amateur photographic interest for St. Louis. Practical process-demonstrations, exchange of ideas, comparison and friendly criticism of work, lantern-slide exhibitions and all matters of photographic interest are in contemplation, with informality of the better sort to govern procedure.

The club membership now numbers forty-five. Regular meetings are held on the first and third Mondays of each month—the first for business, and the second for print-competition on an assigned subject, with criticism by a competent judge.

The brother enthusiast is cordially invited to exchange with us his interest and experience. The latch-string is out, and the stranger in St. Louis is always welcome.

Jamestown Camera Club

AT the Second Annual Meeting of the Jamestown, N. Y., Camera Club the following officers were elected: president, A. Luther Eckstrom; vice-president, Alexander Parsons; secretary, L. C. Ogren; assistant secretary, Cyril Thrall; treasurer, E. H. Sample. The new rooms in the Arcade Building are now practically complete, and are very attractive and convenient for the work of the club. There are two dark-rooms, a kitchen, an officers' room and a large room for club-meetings, exhibitions, etc. This room is nicely arranged and furnished. Dark green burlap has been placed on the walls up as far as the mission plate-rail. The wall above the rail is tinted a lighter green and the steel ceiling is ivory white. The window-hangings are to be green and the furniture all mission style.

The Pictorial Workers

THIS is the name of an active group of nine camerists in Racine, Wis. Although members of the American Federation of Photographic Societies, they have been working very quietly, but with excellent results. It is expected that they will be well represented in the coming Salon. The secretary will be glad to communicate with any other clubs desirous of exchanging prints or lantern-slides for mutual assistance and education. The present officers of the club are Ben. Bones, Jr., president; C. Anderson, vice-president; H. Oliver Bodine, secretary; C. Mortenson, treasurer; T. H. Knight, librarian.

Pittsburg Academy of Science and Art

AT the last election of the Photographic Section of this academy the following officers were elected: G. B. Parker, president; R. D. Bruce, vice-president; J. M. Connor, secretary-treasurer; O. C. Reiter, lantern-slide director; H. F. Walbridge, print director.

Wyoming Valley Camera Club

NEARLY one hundred and fifty prints from prominent photographic workers all over the United States kept the Eighth Annual Exhibition of the Wyoming Valley Camera Club, held early in July, up to the high standard maintained in previous years. Mr. Sadakichi Hartman acted as judge, and awards were made to Elizabeth R. Allen, D. H. Brookins, W. S. Clime, C. L. Fortier, John F. Jones, R. S. Kaufman, R. W. Magee, Carl Rau, R. L. Sleeth, Jr., H. C. Shepherd.

The Post-card Craze in Germany

GUIDE, TO TOURISTS, BEFORE THE ASCENT: Above one thousand feet there is no vegetation; one thousand feet higher, no food; one thousand feet higher still, no shelter, and five hundred feet beyond, no post-cards.—*Meggendorfer Blätter*.

Copy of Photo-Era Wanted

ANY one having a copy of PHOTO-ERA for March, 1906, to spare will confer a favor by communicating with the editor, Wilfred A. French, 383 Boylston St., Boston, U. S. A.

Moving-Picture Tricks

THE artifices which are employed are all of them more or less dependent upon the fact that a moving-picture is made by means of a camera, which takes photographs of animated objects on a film traveling past a lens at the rate of fifteen pictures per second. Almost all the tricks which can be played with the ordinary camera are possible also with the moving-picture machine, states *The Scientific American*. In addition, the film's motion can be reversed with curious effects. Thus, if a horse-race is photographed with a moving-picture machine it is a very simple matter to present the curious spectacle of the animals furiously racing back from the goal to the starting-point, simply by causing the film to

travel backward instead of forward. Double exposing, well known to every photographer, also explains many strange effects. What is known as the "stop motion" renders it possible for characters suddenly to appear and disappear. For example, by stopping the film and allowing a man to walk on or off, and then resuming motion, a sudden appearance or disappearance is produced. On the screen there is no break at the point where the exit or entrance occurred, so that the spectator fails to realize the manner in which he was deceived. Sometimes the diaphragm of the lens is manipulated, in order that forms may gradually become definite or indefinite. The "stop motion" is likewise employed with great effect in giving life to apparently inanimate objects. Thus it is possible for the spectator to see a lump of clay form itself into a bust of Washington, apparently without hands to mold it. The trick is done simply by stopping the film after each manipulation of the clay, and then resuming motion. The finished picture, which may have taken days to complete, is run off on the screen in a few minutes, and produces a truly staggering effect.

LONDON LETTER

By Our Special Correspondent

It is proposed that I should send a letter every month for the benefit of the readers of PHOTO-ERA, giving interesting English photographic news, some account of the trend of photographic politics, descriptions of interesting exhibitions, of new experiments in art or technique and even an account of interesting productions from the trades that aim to assist the picture-maker in facilitating his work.

There is a very uneasy feeling just now in England among those who are in the habit of contributing to the annual exhibitions of the Royal Photographic Society and the Linked Ring; they do not know exactly where they are nor what will be expected of them, and unless some reassuring words are spoken, probably many of them will abstain from exhibiting altogether. My readers will probably remember the causes of this.

At the Royal there is an almost entirely new Selecting Committee. While there were many in favor of a gradual change of personnel on this committee they were not prepared for the *coup* by which the whole of the old members, who had done the work for many years, were swept away and an entirely new body (with two exceptions and those quite new members) appointed. Though there are on the present committee men well-known for pictorial ability the world over, there are others almost unknown to the pictorialists at large, and it almost staggers one to understand how they came there. It is a body whose action it is impossible to foretell; it may do excellently well, but then, on the other hand, it may be revolutionary in its meth-

ods; so naturally the exhibiting public cannot find its bearings.

The case of the Linked Ring is even worse. Enough has been said and written about the state of affairs prevailing at the last Salon, and the conduct of the Englishmen who upheld the *coup* of certain American workers; the Americans have since left the Ring, but those Englishmen still remain members and, until the names of the Selecting Committee are published, the public has no guaranty that these gentlemen will not be accommodated with a seat on it, in which case the Salon is foredoomed to failure; for the British exhibitor is not going to give himself into the hands of those (whatever other men there may be on the committee) who treated him with such scant justice (if any) last year.

So it will be clear to my readers that public feeling is very "jumpy," if I may be allowed the expression, and the future of the two exhibitions a great deal a matter of conjecture. It is probable that the Royal will find some changes and probably a more drastic selection and less inferior work, but it cannot differ very largely, I should think, from its predecessors. Of the Salon it is impossible to prophesy until the names of the Selecting Committee are "out." Various endeavors have been made to infuse confidence into the public, but nothing will allay public feeling except the announcement of the names of the committee and the discovery that those who wrecked the exhibition last year are not included.

The Photographic Convention of the United Kingdom has been holding its meetings at Canterbury under the presidency of Mr. H. Snowden Ward who, in his inaugural address, had much to say about "Photography and Art." He was strongly of an opinion that photography was a real means of artistic expression, and that its shortcomings ought rather to be the shortcomings of photographers. The achievements which were already to our credit were as nothing to what was in store for us in the future. He believed that even now the work of many of our best photographers was far superior to that of the popular, successful painters of the day. He believed that photography had possibilities in the future that even sculptors and painters might envy.

We feel over here increasingly as we read current reports, as well as those of Englishmen who have already visited the Exposition, what an astonishing success has been attained at Dresden. It is not only the pictorial sections that command our admiration, but the way in which the debt owed to photography by nearly all the arts and sciences has been set forth. Not only is it shown convincingly that photography has a unique position of her own, both as an art and a science, but that she is also the handmaid and helper of all the others. It seems evident that the exhibition marks an extraordinary advance upon any of its predecessors. Its position, the extent of the grounds, the arrangement of the sections and the skilful use of demonstration

and illustration do the utmost credit to its organizers.

Mr. Watkins, of the Meter Company, Hereford, has just brought out one of his striking novelties. It is called the "Watkins Time Thermometer" and, instead of the mercury indicating degrees, it indicates minutes of time. On the one side the figures are for stand, and on the other for time, development. The composition of the different developers which can be used is given and also the degrees of dilution for plates ranging from very quick to very slow. When the plate and the developer are determined upon, all that is required is to place the thermometer into the developer and to read off the time that will be required for the class of negative desired.

The Photographic Exhibition being held at the White City, though not nearly so representative or so fine in quality as the one held there last year, will be more widely visited, as it is held in one of the beautiful galleries of the Palace of the Fine Arts. It is provided mainly by photographic societies, but contains work by some of the best-known men in this country. The finest exhibit is by the well-known Postal Photographic Club, while next in merit is that of the Society of Night-Photographers, established through the instrumentality of Mr. A. H. Blake, whose work is well known to Americans. This society was formed with a view to the study of photography after dark; not by faked results, but such as can be obtained by the genuine use of either artificial or moon light. Remarkable results have already rewarded the efforts of the society. Though American visitors will not be impressed with the Exhibition as a whole, they will be interested in some of the collections and in the Professional and Photographic Reproduction divisions.

I do not know whether photographic portfolio clubs are nearly as much in vogue in America as in the old country, but I am sure that they are doing a useful work in England. The number here must be very great, and the standard of the best of them is very high; in fact, some that are known to me are composed of members who have, almost without exception, gained for themselves an assured position in the world of photography. The general plan among beginners' clubs is to engage the services of a well-known pictorial photographer to act as critic and to direct the studies of the members who, themselves, also learn to criticize each other's work and so improve their own. It is a cheap form of combination and cannot well cost more than about \$5.00 a year, and for that the member will view from about one hundred to two hundred prints yearly as well as get the advantage of the critic's and the members' remarks upon his own work. At any rate no one need stagnate in the country away from other workers, nor follow the useless plan of comparing only himself with himself. The chief difficulty is to find a secretary who, in addition to being a pictorial enthusiast, will be a good business man if the club is to be kept together and be harmonious in working.

BOOK-REVIEWS

Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.

DEUTSCHER PHOTOGRAPHEN-KALENDAR-TASCHENBUCH UND ALMANACH FÜR 1909. Edited and published by Karl Schwier, Weimar.

Part I. Price, cloth, 50 cents.

Every German-reading practitioner will be interested in this convenient and compact pocket-diary and almanac. It is filled with all manner of useful technical information, up-to-date, condensed, and derived from entirely trustworthy sources. Among its several valuable features is a list of 616 carefully selected recipes covering the entire range of practical photography; a list of poisons and antidotes; a list of the principal photographic chemical compounds; the German copyright law complete, and an excellent railway-map of Germany.

Part II (price, paper covers, 50 cents) is a handy little volume, also edited by Karl Schwier, and contains the names of members of every photographic club, professional and amateur, in Germany and Austria. Of the bodies in other parts of the world it contains the names of the officers. It mentions, also, all existing photographic publications, also the names of manufacturers of photographic supplies and specialties throughout the world. For this reason this section of the German photographic almanac for 1909 is valuable to the practitioner, as well as to the dealer and manufacturer.

DER OELFARBEN-KOPIERPROZESS NACH RAWLINS, VON C. PUYO, AUTORISIERTE UEBERSETZUNG VON DR. C. STÜRENBERG. Price, 45 cents; cloth, 60 cents. Gustav Schmidt, Berlin.

This is No. 24 of the publishers' Photographic Library, and a German translation of C. Puyo's well-known work. The oil-process, originated by Rawlins, attracted the attention of those clever craftsmen M. Demachy and M. Puyo, who, possessed of adequate executive ability and a pronounced sense of color and harmony, achieved some delightful results in this new, flexible medium. As is well known, the oil-picture, in the colors of the original, rests on a straight photographic print and, like the multi-colored gum-print, is built up, one color superposed upon the other. In skilful hands the oil-process is capable of yielding artistically beautiful, as well as absolutely permanent, pictorial creations, and it is hoped that every worker, even he who can draw or paint with only tolerable success, will investigate this extremely delightful medium, as so clearly set forth by M. Puyo, and give it a trial. Dr. Stürenberg's translation cannot be too highly praised.

✧

Lend money, lose a friend — the money also.

WITH THE TRADE

Photographing Color-Contrasts

THE Crucible Department of this issue has been given up to extracts from an important and interesting booklet just being issued by the G. Cramer Dry-Plate Co., St. Louis, Mo. It is the first of a series of pamphlets, by R. James Wallace, treating of light and color in a simple and practical manner. An important feature of the booklet is a three-color reproduction of a color-chart and table, by means of which the photographer can select the necessary screen for any particular color which he wishes to photograph either as black or white. The booklet is free to those interested. Send for a copy; the information is valuable.

The Seneca Film-Pack Adapter

BY the use of this new device one can use film-packs with all their well-known conveniences in Seneca, Ingento, Premo, Century and all leading makes of plate-cameras, entirely doing away with the dark-room for loading and unloading purposes and making it possible to use the ground-glass for focusing while using film for exposures. This adapter is very similar to the ordinary plate-holder, consisting of a cherry wood frame with a slide-opening which is light-tight when closed. Permanently fastened to the back of the frame is the film-pack holder, made of aluminum with no hinges to become loosened, allowing light to enter and fog the film. Send to the Seneca Camera Mfg. Co., Rochester, N. Y., for prices and a complete descriptive circular.

A Universal Picture-Hook

AN ingeniously simple and practical hook, suitable not only for pictures, but almost anything that is to be suspended from a vertical surface, is the "Handihook," advertised in this issue. The article will prove a boon to the photographer, in particular, for he can put it to many uses in his studio, reception-room and home. In camera and art clubs, where pictures are to be hung, the "Handihook" will prove a blessing.

Agfa Contest Continued

OWING to the unlooked-for response to the "Agfa Metol Contest," The Berlin Aniline Works, of 215 Water St., New York, wishes to announce that this contest will be continued until Jan. 1, 1910.

Ten amateurs have been presented with orders for one ounce of "Agfa Metol" in the contest closing August 1, but all the others who are still in this contest will count in on the January 1 closing.

Ask your dealer about it; or write direct to the importers at the address mentioned above.

Our Editor at Dresden

THE International Photographic Exhibition at Dresden is a tremendous success. We are constantly receiving reports from American visitors expressive of the utmost enthusiasm. The beauty, variety and extent of the art and industrial exhibits, alike, are deemed worthy any sacrifice in time and money to witness. Mr. Wilfred A. French, of PHOTO-ERA, is one of the many lucky ones to enjoy this wonderful display of photographic art and science. From Dresden he journeys to Bayreuth, Munich, Nuremberg, Rothenburg, Frankfurt and Wiesbaden; thence to Holland and England. In London he will inspect the two great photographic shows—the Salon and the Royal—and then return home. He will use his camera considerably.

American Industries in Germany

AN American exposition will be held in the city of Berlin, Germany, during the months of April, May and June, 1910, in the well-known Exposition Palace near the Zoological Garden, located in the best and most frequented part of the city. While primarily designed to stimulate and strengthen our commercial relations with Germany, this exposition cannot fail to prove an important factor in increasing our export trade generally, and should prove of especial interest and value to manufacturers of photographic goods. Prominent citizens and business men on both sides of the Atlantic will cooperate to make this exposition successful. The European management will be in the hands of men previously experienced at expositions. Full particulars of this important event may be obtained of Max Vieweger, American manager, Hudson Terminal Buildings, New York City.

Faked Testimonials

WHEN a manufacturing firm resorts to the desperate expedient of publishing, as part of its advertisements in photographic journals, or in pamphlet form, alleged testimonials from United States government officials without their knowledge or authority something must be wrong. Moreover, these functionaries are not at liberty, in their official capacity, to endorse the excellence of a commercial product; nor can they prevent unscrupulous persons from publishing garbled versions of a privately expressed opinion, although they may protest against a repetition of such fraudulent use of their names. The photographic public is well aware of these facts, and understands, also, that the opinion of a regular professional expert of high reputation counts for more than the superficial judgment of a government official who has little or no practical knowledge on the subject.

Sepia Tones Direct by Gaslight

A DISPLAY of prints made on a new and delicately-tinted buff paper attracted great attention at the Rochester Convention. This stock has just been brought out by the Kilborn Photo-Paper Company, the originators of the Sepia-in-First-Development process. With this paper it is possible to obtain almost any tone desired, from black and white through rich browns to a brick red, merely by varying the exposure and developer — and all out of the same box. An inquiry addressed to the Kilborn Photo-Paper Company, whose advertisement appears on another page, will bring full information.

Great Demand for Photographs

WORKERS who excel in making pictures of automobiles, farm-scenes, pets, children in costume and at play, persons playing musical instruments, and kindred subjects, will be interested to know that several highly responsible firms are ready to pay excellent prices for such prints. Attention is invited to the advertisements in this issue of Thomas B. Jeffery & Co., the publishers of *Farm and Home* and also the *Musician*, Mr. Arthur Dudley and others.

A Delightful Photographic Paste

It is a convenience and pleasure to use a paste that is uniformly efficient and reliable, such as Day's White Paste, which ranks among the best products on the market to-day. It is smooth, instantaneously efficient and, in every way, agreeable to use. One wonders why some people continue the use of pastes that are watery, disagreeable, and have little adhesive power when, for the same price, they may obtain an ideal article, and one which has all the advantages claimed for it. We invite the attention of our readers to the advertisement of Day's White Paste, which is running continuously in this magazine. We are glad to give it our hearty and personal endorsement.

New Graflex Cameras

GRAFLEX photography has a strong advocate in the 1909 catalog of the Folmer and Schwing Division, Eastman Kodak Company. Good will-power is required to go through its pages and not feel the desire to own a Graflex or Graphic camera. With them one can seem to do everything which the ordinary camera permits of, and much more besides. Up to the present time this type of instrument has been regarded by many as being intended primarily for commercial work, although many enthusiastic amateurs who were lovers of genre have been devotees for some time past. This season, however, new models intended to make use of roll-film, and thus take advantage of the convenience of the Kodak system of tank development, have been put on the market. Two new models, small, compact and intended primarily for amateurs, are of especial interest. Get a copy of the catalog and become familiar with their unique features.

Truth in Photography

SUCCESSFUL pictorial photography demands the use of color-filters with which to secure true values in monochrome. Burke & James, of Chicago, are prepared to furnish three distinct grades of filters intended for various uses. All are admirably adapted to the purposes intended, and those interested will do well to secure a copy of the little booklet "Outdoor Photography," which describes them fully.

Four Lenses of Merit

ANY one who contemplates buying a lens for photographic work will do well to write to the Wollensak Optical Co., Rochester, N. Y., for a copy of "The Photographic Quartette," which is a series of short articles by well-known photographers in regard to four popular lenses, illustrated by reproductions from their negatives. The booklet is handsomely printed and conveys much valuable information.

Korona Cameras

THIS high-grade line of instruments was never so attractively presented to the public as in a new catalog which the Gundlach-Manhattan Optical Co., of Rochester, N. Y., will gladly send to those who request it. A great variety of styles is shown, meeting the varied demand of many kinds of photographic work; and all, whether small hand-cameras or commercial view outfits, are worthy of high praise for quality of construction and convenience of design. The Korona Adapter for using film-packs with plate-cameras is a recent innovation which should appeal to many who wish to use plates when at home and films when traveling.

Regina Arc-Lamp Contest

THIS contest closed March 15 and was judged by several eminent German photographic experts. The results were as follows: first prize, Julius Thomson, Sonderburg; second prize, Eugène Coubilliers, Cologne; third prize, E. O. Hoppé, London; fourth prize, Messrs. Spalte and Kluge, Augsburg; fifth prize, Felix Korb, Crimitschau; sixth prize, Arthur Schneider, München. Awards of cash and photographic apparatus were made.

This contest has proved that with the Regina Studio Lamp it is possible to obtain effects which cannot be told from those produced by daylight, and with the added advantage that one becomes absolutely independent of weather conditions. All the detail, gradation and softness of daylight, and even the effect of strong sunlight, may be obtained at will in the simplest manner. Every progressive professional should familiarize himself with this new and wonderful invention. A request addressed to the Regina Arc-Lamp Co., Cologe-Sülz, Germany, will bring the desired information.

Query: Is one who stands for his picture a "sitter"?

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Official Organ of the American Federation of Photographic Societies

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ADVERTISING-RATES ON APPLICATION

WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return postage is enclosed.

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THE ARBOR
CHARLES K. ARCHER



PHOTO - ERA

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Methods of Advertising

C. H. CLAUDY

IF it were possible for you personally to address an audience of ten thousand people, all of whom you wanted to impress with the fact that you were a good photographer, that your pictures were unusual, and that they should patronize you rather than some one else, and if, in that address, you had but one minute to speak, what would you say? A newspaper advertisement must occupy considerable space to require one minute for reading.

You pay a newspaper for the privilege to tell its readers why they should buy of you. To be careless in the manner in which you tell your story is to throw away both money and opportunity. It is for this reason that the man who writes his own advertisements is like the layman who handles his own case — he has a fool for a client!

You would laugh at the idea that an amateur photographer of a average ability could make his own portrait as well as you, with all your experience and equipment. But what difference is there when you attempt to write your own advertisements, instead of going to the man with the equipment and the experience and get him to do it — he who can do it well?

Whatever form of advertising you adopt, don't stop spending money with securing the opportunity — spend a little more to use the chance up to the limit of its possibilities.

Advertising-schemes are without number; but certain ones are more or less standard. Some of these I am going to discuss in detail.

THE BOOKLET

It is probably the most effective shot in your locker, if it is properly made, well loaded, carefully aimed and deftly fired. So many people believe that any advertisement is all advertisement that it is difficult to get credence for the statement that the printed matter is only a part of any campaign for business. Yet if you had a million copies of the finest booklet in the world, descriptive of your work, and sent them all for distribution to Hong-Kong, you would n't expect much in the way of immediate results!

A booklet should have a purpose. A booklet should have meat in it, a reason for existence, a story to tell. If you have won a prize, a medal or diploma, a little brochure modestly telling about it, the causes which led to the prize being won, and something about the prize-winning picture, is a case in point. If you have a new camera, a new lens, a new method, a new style, a booklet which will attractively portray it to your customers should prove an investment yielding good returns. But a booklet which says merely that your name is Smith, that you make pictures, that your prices are thus-and-so and your address such-and-such, is money wasted. Never use the booklet, which is expensive, when a less expensive form of advertisement will do the work. But *never* issue a *cheap* booklet, unless you do cheap work. To put good advertising on poor paper with poor presswork is to reduce its value fifty per cent, and to advertise refined photographic work of high quality in any but the highest-class manner is to throw coin away.

THE CALENDAR

is sometimes an effective advertisement and sometimes a delusion and a snare. In my humble opinion it is more often the latter than the former, when it comes to the photographic business. Few men would pay any attention to the name and address on the calendar in their offices if their wives wanted a photograph — they are much more likely to credit the last picture they have seen with your name.

But I recall one brilliant exception, in which a photographer designed an ingenious calendar and found that it paid. Just before Christmas he advertised that with every order of a dozen prints of a certain popular style he would give a Christmas present. He worded his advertisement so that it seemed rather that he was anxious to enter into the Christmas spirit and give his customers a little gift than as if he were offering a premium. When he came to deliver his gifts the customer received a package neatly done up in tissue paper, tied with red ribbon, stamped with a holly seal — exactly as if it were a genuine Christmas gift from some thoughtful friend. Inside the package was a neat, plain card, on the bottom of which was a small and dainty calendar and on the upper half a *platinum print corresponding to the order supplied*. Above was engraved a tiny card bearing the greeting: "Merry Christmas from me to you!" The inference was irresistible. Besides creating good feeling between the photographer and the customer, the gift was of a nature to be given away again immediately, since no one cares for a calendar adorned with a picture of himself. And the advertising-value came in this way: the clever photographer had permitted himself to place a neatly-embossed card of his own, not too conspicuous, at the lower left corner — "Smith, Portraits. 101 Elm." Besides, he had signed the platinum print, as usual, and his name was printed on the back of the card!

Oh, canny Smith! Something for nothing has ever been a lure. When that something is a good advertisement, and morally certain to be passed on; when it costs little and, in addition to making friends with the person to whom it is

first given, is likely to make a customer of the second, as well as of the various people who are told of the idea, it is certainly one to pay. *That* was advertising with *brains*.

THE STREET-CAR CARD

can be made of service anywhere, but not unless it is carefully designed, well executed and frequently changed. There is one objection to it for photographers' use: large advertisers can afford to have lithographed and three-color half-tone cards in cars, printing them in huge quantities. *You* cannot. A plain, printed card suffers by comparison, and you can't afford to have your business or your name seem less refined or less successful even than some one's premium ham, another's floating soap, or a third's patent medicine. Better cut out the car cards, unless you feel you can afford a dainty set. Personally, I don't see why you can't afford five hundred cards in sets of fifty, each decorated with a D. O. P. portrait. Ten 4 x 6 portraits, in lots of fifty each from ten negatives, all of pretty girls, daintily-dressed women and babies, and finished, half in black and half in sepia, ought not to be more than two days' work for a small force, and a set of fifty cards in fifty cars, changed weekly, for ten weeks, during the Christmas rush, will bring big results. But be very sure you have permission to use the pictures, or you may run against trouble.

BLOTTERS

are fairly well exploded as advertising-mediums. When an advertising-campaign has so thoroughly covered the territory that all that is necessary is to keep a name before the public, so that the advertising which has been done will not be forgotten, blotters may well serve their turn. The same is true of rulers with names and businesses printed on them, paper-cutters and other advertising-novelties. But as business-getters such articles are generally a failure, particularly when they are aimed at people whose pocket-books must open to some wideness to deal with you.

FOLLOW-UP-LETTERS

are vitally important to most advertising-campaigns. A really good follow-up-letter is a jewel without price. It is used to go after names secured in some way or other, to produce business which is shy in coming. Different communities demand different methods. Large cities are less fruitful ground for follow-up-letters than small ones, and certain localities will stand a larger number sent after names than others. But your advertising-man must lay out your system for you — every business is a law unto itself in such matters. Alas, however, many a good advertising-man is a failure when it comes to writing follow-up-letters, and does n't know it. Beware, as you would the devil, of a follow-up-letter which reproaches, which complains, which finds fault, which reproves or which makes any accusation. For instance, "We cannot understand why you have not taken advantage of our liberal offer — surely you cannot afford not to have us take



FRASERBURGH SANDS

WILLIAM NORRIE

your picture," is going to make the average man say to himself, "Well, I don't care a hang whether you understand it or not!" and throw the letter away!

To say to a prospective customer, *via* form-letter, "We cannot afford to draw your attention again to our offerings at this season," is just throwing space away. To write a man who, you believe, may sometime have his portrait taken by you, "You are neglecting an opportunity to get a rare bargain — don't delay any longer, but let us make an appointment," is so trite and commonplace as to be altogether wide of the mark. One vital mistake you and a thousand others like you make, when it comes to sending out four or five consecutive form-letters at intervals of a week or ten days, is to think that each must contain some reference to the last; that the letters must tell a definite, continued story. Thus, Number 1 tells your name, and business and what you want; Number 2 mentions that Number 1 has been sent, and, "Why don't you take advantage of the chance?" Number 3 says that Numbers 1 and 2 have been sent you and you cannot understand why the recipient has n't come in and spent money; Number 4 ends up with the statement, "We have sent you Numbers 1, 2 and 3 letters, and have had no reply, and now beg for the last time to inform you that Smith's is it when it comes to making pictures!"

This is all wrong. Numbers 1, 2, 3 and 4 should be entirely different letters in form, in tone, in contents and in method. Each should be a shot in itself. If



PETER VAN LITH

BY J. C. STRAUSS

Number 1, telling him (the recipient) of new panel platinum at \$7.00 per dozen, does n't bring forth a reply, let Number 2 speak of 16 x 20 or 1 x 2 vignettes. If the customer-to-be does n't want either, tempt him with a miniature or an exclusive head. In Number 4 show him where money is to be saved on some style at this time of the year.

Make each letter cheerful. Make each one courteous, each one optimistic. Let nothing go into your letter you would n't let your receptionist say to a customer. Imagine your young lady saying to a man who had spent half an hour



“EAST IS EAST AND WEST IS WEST”
WILLIAM H. PHILLIPS





READY FOR THE FRAY

GEORGE T. POWER

looking over samples and then decided he would call again, "Well, I can't understand why you don't buy. Surely these are cheap enough!" Do you suppose that man would ever come back? Not a bit of it. But if the young lady smiles him out, asks him if she can't show him something else, asks him to come to her for waiting-on when he returns, and makes him feel at home, when he *does* decide he can afford a sitting he is coming where he was well treated. Exactly the same principle holds good with form-letters. You can create either a favorable or an unfavorable impression — you can interest a man in your meth-

ods or your business or your styles, or all three, or you can antagonize him with your tactless words. Remember always that you are, in a letter, going to say perhaps two hundred words to a man; pick those two hundred with care, and make them breathe not only success and good prices and the picture he must have, but courtesy and good will.

CANVASSING

There are photographers who do it. I disappoint one young woman regularly every month. She wanders into my office with samples and a large, red hat, and sits down and endeavors to ingratiate herself with a smile, and tries to look as if she would cry if I decline to order. I always do decline, and she never does cry. I would never think of going to the gallery she represents for photographs. It seems to me that, needing such methods to get work, the work itself cannot be first-class.

To send out agents to solicit by the ticket or coupon-method is precarious business. It is somewhat like purloining a man's watch in a street-car in order to get two years' free board — in State's prison. To promise a house and lot or an automobile or a ninety-seven-piece dinner-set with every dozen pictures is all that is necessary to keep every thinking man and woman in your city away from your doors. But I forget I am talking to respectable photographers!

MISCELLANEOUS SCHEMES

There are several ways to get publicity, some of which come more under the head of business-getting than simple publicity. Thus, the man who opens a new studio and neglects the opportunity for a reception — well-advertised, with engraved invitations to the best people in his town, and something in the way of a souvenir — is letting a chance slip by. But it takes brains and tact and some social skill. Ill done, it is better left undone. Well done, and it will bring notices in the papers and business will follow.

Invitations to certain people to have their pictures taken free "to complete our gallery of public men" or "to finish our set of prominent society people" sometimes result in orders from the negatives so made. But it always seems a catch-penny scheme — unless, indeed, you are truthful and really do need the pictures to fill out a set from which newspapers and magazines are constantly ordering.

You fight shy of the dentist with the free-sample filling; the drug-store with the free-sample medicine; the doctor with the "thirty-days' free treatment." What guaranty have you that your invitations will not be received in the same spirit? Different localities and circumstances need different methods of treatment from an advertising-standpoint; but human nature is pretty much the same in New York and Kamchatka. It is the general consensus of opinion that any advertising-scheme which has "free" attached to it, as applying to anything else than booklets or advertising-matter, is likely to do more harm than good among the class of people photographers try to reach.

FREE PICTURES TO THE PRESS

is a scheme with many advantages. To see, "Photo. by Smith-Jones," every day in a newspaper is first-class advertising for you. But it means that you have to go, at any and all hours, anywhere, for any kind of a picture; if your town is large and your papers alive, it means that you have to keep one man busy doing nothing but that. Yet even the salary of one man and the cost of plates and paper he uses do not make an exorbitant sum when you consider the advertising you get in this way. Much more critical attention is paid to pictures illustrating a news-story than to any other single thing in a newspaper. The advertising comes in having your name associated with such pictures. I can recall one firm, now very prominent in photographic circles, which made its reputation and its business largely through this means of advertising.

But whatever scheme or schemes you try, there are certain points to be remembered in connection with all. No advertising of a high-class studio is good advertising unless it is dignified. None is worth considering which may antagonize a possible customer. It's poor advertising which is iconoclastic. It is n't enough to tell people what a picture ought not to be, and what the other fellow fails to do; you must let your public know what a picture should be, and that you can supply it. Thus, in this advertisement,

DON'T BUY CHEAP PHOTOGRAPHS

CHEAP PHOTOGRAPHS ARE NEVER GOOD PHOTOGRAPHS

Try Ours

SMITH'S

the impression is given that you are an expensive man, and that to be good a photograph must be costly. Compare with this, which expresses the same idea, constructively:

YOU CAN'T BUY SOMETHING FOR NOTHING

But

YOU CAN BUY THE BEST PICTURES FOR A REASONABLE PRICE

At

SMITH'S

Of course, these are mere skeletons — "sketches," the ad. man calls them, containing the germ to be worked out. In this case it is the most obvious of all germs, the price-germ, and was chosen here as being the easiest on which to hang a deadly parallel comparison.

Finally, never forget that advertising is just a talk between you and the man who reads it; never say in advertising what you can't afford to say face to face; and, inasmuch as your space (time) is limited, consider most carefully what you will say and — equally important — how it shall be said.

For so, and so only, shall you find advertising paying you the dividends it pays the man who is master of the subject, or who has the good sense to choose for his advertising-man him whose experience is large and whose success in advertising is measurable in results.



THE STORM APPROACHES
W. J. STREET



The Gum-Platinum Process

MALCOLM ARBUTHNOT

ALTHOUGH the idea of superimposing an image in pigment on a platinum base was suggested many years ago, yet the process seems to be very little known and, so far as I am aware, used by few. It is, however, probably the finest method of printing a pictorial photograph, containing as it does the best qualities of perhaps the most valuable two processes ever offered by the scientist to the artist; namely, platinum and gum-bichromate.

Possibly some may be prompted to ask why one or other of these printing-mediums is not sufficient for our needs by itself without combination; but when setting out to give the best possible rendering of a subject, it behooves us to use every means at our disposal.

The platinum process, I believe, stands preëminent for the rendering of half-tones and subjects where a general delicacy is the dominating feature, whereas gum-bichromate is chiefly remarkable for the wonderful depth and lusciousness it imparts to the darker portions of a picture.

THEORY AND PRACTICE

Theoretically, we should therefore strive to obtain a very thin platinum print, in which every gradation in the lighter tones is present, the shadows being produced by coating the finished platinum print with a mixture of gum arabic, potassium bichromate and pigment. However, in practice it will be found that we can depart very considerably from the theory and, in fact, work even in the opposite direction, provided the negative be suitable and the effect desirable.

There is no doubt that for certain subjects a plain platinum print from a good negative will give practically all that could be wished for, and it is equally certain that for others gum-bichromate from even a bad negative will do likewise; but, as every adherent of either process will admit, there is, apart from the limitation of subject, a considerable risk of failure, due to reasons over which we have frequently no control. For instance, platinum prints have a knack of turning out flat and mealy, or the exposure may be so slightly incorrect as to spoil the effect aimed at.

The number of queer things which may happen to gum-prints, when printing for a long range of tone, is almost past belief — so much so that many workers have given up the process in despair. By combining the two processes we are not only enabled to render practically all subjects, but, except from accident or gross carelessness, we need never waste a print. The results will not only have a quality which is unique, but will bear the impress of personal control from start to finish.

In describing the working-details it is, perhaps, unnecessary to remark that it is most essential to have clearly defined the effect which is being aimed at; in fact, as with any other finished picture, this must always be in the mind's eye.

Consequently, we shall commence by making our negative, so far as possible, according to whether we desire to make most use of the platinum or gum element.

THE GUM-SOLUTION AND SENSITIZER

The gum arabic solution is that in general use; namely, two ounces of best gum arabic in five ounces of water, to which is added a little formaldehyde or carbolic acid as a preservative. This should be strained.

The sensitizer is a saturated solution of potassium, or, better still, ammonium bichromate.

If a number of printings which would involve a great amount of gloss in the shadows are contemplated, it is advisable to dissolve the gum in a four per cent solution of arrowroot. This, in addition to giving a matt surface, forms a much tougher film, in which, consequently, a larger amount of pigment can be incorporated without danger of its breaking away in patches during development.

COLOR OF GUM-PRINTING

Those taking up this process for the first time will probably think it essential to match the pigment with the tone of the platinum print, but this is not really necessary. I have produced many prints in a warm sepia color which were commenced with a thin, black platinum print as a base.

Some delightful effects can be obtained by printing in two tones, or by a judicious combination of various pigments and platinum developing-baths, such as the formula devised by Mr. Inston.

As a slight loss of quality in the platinum print is of no consequence when used as a base for gum-printing, it will often be advantageous to develop by the glycerine method, which not only affords a further opportunity to effect alterations, but also reduces the risk of spoiling paper from errors of exposure.

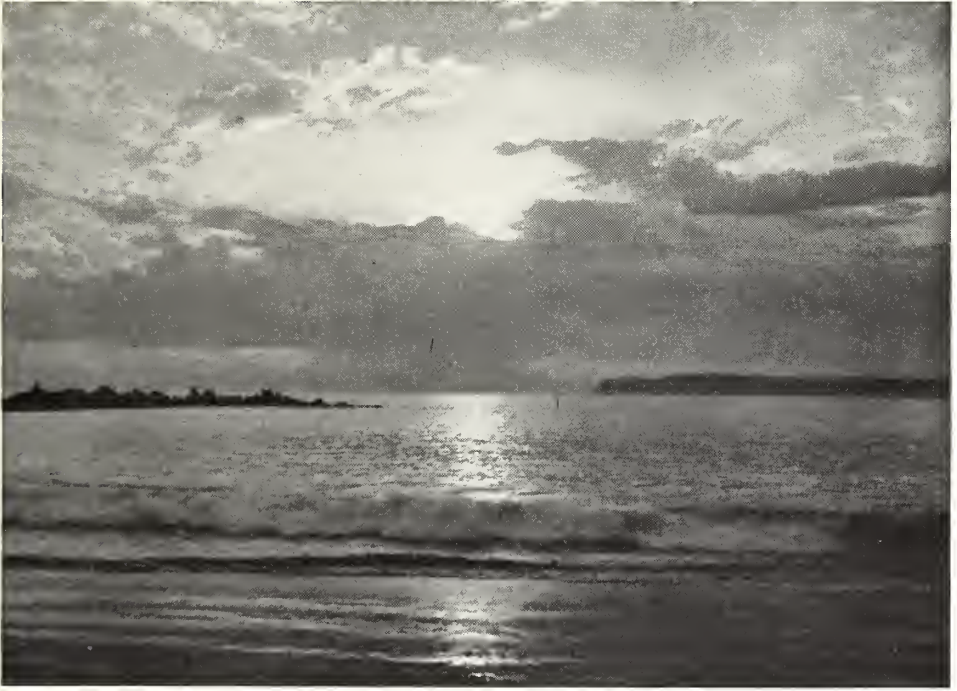
In the case of portraits and figure-studies, some interesting effects can be obtained by developing only a part of the print (such as the face in a portrait), holding back the rest with glycerine.

This undeveloped portion is then replaced by a gum image, which can be worked upon with brushes, etc., thus imparting a delightfully spontaneous and sketchy character, which for some subjects is very pleasing.

MAKING THE PLATINUM PRINT AND REGISTERING

In commencing to make a gum-platinum print it will first be necessary to devise some method of replacing the print on the negative so as to ensure exact register being obtained. This can be accomplished in several ways, and the use of a drawing-board, instead of a printing-frame, is one of the best, besides having the further advantage of allowing the whole of the print to be examined during exposure.

A piece of stout flannel must be attached to the board, and upon this is laid the platinum paper, sensitive side uppermost. When cutting up the paper, a margin of about an inch larger than the negative must be provided. Pin the paper to the board by the four corners, and in the center place the negative.



SUNSET, CORONADO BEACH

HAROLD A. TAYLOR

We shall now require some ordinary pins of a fairly stout gauge, and two of these must be driven through the paper into the board, so that they press firmly against the glass on all sides.

A few drawing-pins can be used to ensure contact if desired. This is necessary only if the negative is not a very large one. If a large glass-negative is used, its weight is generally sufficient to keep it in good contact with the paper. Printing should be conducted with the board as nearly horizontal as possible. A good top-light or printing in the open air is advisable.

When it is necessary to examine the print, the negative is removed altogether, and if the pins have been accurately fixed it can be replaced in exact register.

MAKING THE GUM-PRINT

The platinum print, having been finished and coated with the gum mixture, must again be placed upon the felt-covered board, and it will be necessary only to reinsert the pins into the same holes to ensure the register of the negative.

For small pictures an ordinary printing-frame will suffice, but in this case the subsequent printings must be adjusted by hand, and therefore it will be found advisable to provide registration-marks on the negative.

These can be made either by scratching away a portion of the film at the edge of the plate, or by painting an opaque patch which will have corresponding

marks on the print. When the print has been thoroughly dried it will be ready for coating with the gum mixture, which should be composed of equal parts of the gum and bichromate solutions previously mentioned.

THE PIGMENT AND EXPOSURE

The pigment will be the next consideration, and this can be used either in powder or tube form, my preference being for tubes, lampblack being very useful as a base, which can easily be modified by the addition of other colors.

The amount to be used depends entirely on the portion of the negative we wish to print. Should it be desired to deposit a pigmented image on the lighter tones, a very little color will suffice, whereas for building up the shadows a much larger quantity may be used.

It must not be forgotten, however, that the grain of a gum image depends to a great extent on the amount of pigment in the coating; any excess is liable to give a very coarse grain indeed, so that when printing a shadow-coating the exposure must be carefully watched in order that the thick film does not get deposited on the lighter tones, which would at once show an unpleasant granularity.

The correct amount of pigment can be satisfactorily determined only by experience; but, as a rough guide, I may suggest that for a shadow-coating three quarters of an inch of Reeves' lampblack will be about right for half an ounce of gum and an equal quantity of bichromate; for the half-tones, say half an inch; while a quarter of an inch will be sufficient for the high-lights.

When printing for the shadows it is advisable to use a slightly higher proportion of gum than bichromate, and *vice versa* for the lights. An actinometer of some kind will be required for judging the exposure. Those who are used to gum-printing will have no difficulty in estimating the exposure; but for the benefit of beginners I would mention that a coating in the proportions given for the half-tones would be about the same rapidity as P. O. P.

Development is effected by immersing the print face downwards in cold water for about fifteen minutes, then complete by means of a brush or spray. The tones of the print will be perfectly under control.

A NOVEL USE OF THE ALUM BATH

Should it be desired entirely to remove a correctly-exposed coating, it is necessary only to soak the print in cold water for about an hour, followed by gentle friction with a soft brush. But if the coating has been over-exposed, then we must have recourse to an alum bath, which must be about five per cent or stronger. The print should be immersed in this face downward for two or three hours, when it will be found to have become quite soluble. This may sound somewhat strange when considering the hardening-properties of alum; but it seems that a solution of alum first softens a gum image (and some other colloids), and exerts its hardening influence only when the print becomes dry. For this reason care must be taken before removing the print from the alum bath to see that pigment remains on the paper only where it is required.—*The Amateur Photographer and Photographic News.*

Talking-Pictures

Synchronism and the Simultaneous Recording and Reproducing Photographically of Sounds and Pictures or Images

ROBERT THORN HAINES, F.R.P.S.

MANY attempts have been made to reproduce the images, pictures or representations of moving-objects, together with the simultaneous sounds produced by or accompanying them, by means of, in some way, connecting an ordinary phonograph or gramophone to a cinematograph; but so far none of those attempts appears to have proved satisfactory. The difficulties attending the accomplishment of any successful result by that means are far greater than would at first thought be expected. The phonograph, and other similar contrivances, as well as the cinematograph, are not perfect, therefore it would be obviously impossible to obtain a satisfactory result by any combination of two imperfect instruments.

The necessity to sing or speak in close proximity to the instrument in order to make a record suitable for reproduction would render it impossible to photograph the picture except as showing the phonograph with the singer near it instead of the correct natural attitude, and for that reason it would be unpracticable. The method usually adopted is first to obtain the record, which is placed in a phonograph connected to the cinematograph, and, while the picture is being taken, the record, which is being produced at a sufficient distance from the singer to be out of view, is repeated by the singer. The synchronizing of a picture and record taken and reproduced in that manner, depending, as it does, upon imperfect human skill and erring judgment, could not possibly result in anything more than a mere approximation.

It is indispensable to a correct reproduction that the simultaneous movements and their accompanying sounds be simultaneously recorded and reproduced in exact synchronism. The waves which constitute the sounds must not suffer any variation, alteration or modification in the process of recording and reproducing, but should be recorded and reproduced in precisely the same form as the originals alone, and without the introduction or accompaniment of any other sound-waves. The pictures must, of course, be in every respect free from the flicker and other defects of ordinary cinematograph pictures.

The phonograph and gramophone are essentially mechanical contrivances, and it is more than could reasonably be expected that all the minute and delicate forms and variations of the sound-waves produced by the rapid vibrations of the diaphragm, actuated by and representing the human voice, could be accurately recorded and reproduced by any mechanical means.

A careful examination and study of those instruments disclose what happens to the waves, and how they suffer considerable distortion and modification by the process in which they are recorded and reproduced. If these sound-

waves be diagrammatically recorded by such an instrument as the vibrograph or phonautograph, the record thus made would show the true form of the waves. Now if the waves be impressed on a phonograph record and reproduced by the phonograph so as to be recorded on the vibrograph, it will be found, on comparing the two vibrograph-diagrams, that the waves in the diagram which were taken from the phonograph-record have suffered such distortion or modification as not to be recognized. The absence of such delicate curves and wave-modifications as constitute the fine inflections or tones and variations of the human voice, as well as the tones of musical instruments, are due to the emission of insufficient physical energy to actuate a mechanical instrument, like the phonograph or gramophone recorder, with sufficient force to impress or score them accurately and with sufficient rapidity on the more or less hard material of which the records are composed.

In the process of recording, as well as reproducing, the friction caused by the hard pin in contact with the record, and the forcing against the air of the fine shaving which is excavated or scored out when the record is being made, create sound-waves which mingle with the originals, and exercise their influence on them. The material of which the horn or trumpet, employed to amplify the sounds, is constructed, lends its own vibrating tone to them, and further modifies their form. These accompanying sound-waves and modifications are distinctly heard and distinguished from the originals when the record is reproduced.

It is obvious from what has been said, in view of their peculiar inherent nature, that no hope could ever be entertained of entirely eradicating these defects, in the absence of a means for recording wherein no energy is required to record the waves, and no contact or friction takes place between the vibrating medium and the record.

Photography amply satisfies these requirements, and by its aid not only can the sounds be perfectly recorded and reproduced, but absolute synchronism of the sounds and pictures or images constantly maintained. The action of light is sufficiently rapid to record all the delicate variations and forms of the sound-waves, photographically, on the highly-sensitized medium containing the pictures, so that they can be recorded simultaneously on the same medium and therefore not liable to vary in point of time. The form that such a record takes is that of a continuous series of photographic impressions, varying in degree of opacity and transparency, or otherwise varying in size, shape or other essential characteristic, according to the particular form chosen, precisely corresponding with the variations in the form of the sound-waves emanating from, and produced by, the human voice.

The process by which the result is obtained consists in collecting the sound-waves at the place where they originate and conveying them electrically to the recording instrument, where they are utilized to vary a light-source or the rays emanating from it, so as to produce on the sensitized film, side by side with the pictures or images simultaneously taken, a series of photographic impressions of varying opacity and transparency or otherwise of varying form; which, in



PORTRAIT

A. A. BISHOP

P. A. OF N. E. CONVENTION

turn, are caused to vary the rays from a fixed light-source so as correspondingly to vary the resistance of a continuous electric current operating a loud-sounding microphone by which the sounds are reproduced, simultaneously and in exact synchronism with the pictures or images, at the place where they originally emanated from. I conceive other means by which a record can be made without contact or friction, but I am doubtful whether any of such means would be found so practicable as this photographic process has already proved to be.

The Influence of Aperture

The Case of Large vs. Small Cameras and Lenses Clearly Stated

FRANK H. JEFFREE

THAT the character of the finished photograph is influenced by the aperture used when taking the negative — a large aperture producing a broad effect and a small one, fine detail — is well understood, but it may be worth while to inquire more closely into the reasons for this, and try to deduce from them some simple rule which will enable us to obtain with certainty any degree of breadth or detail desired.

In talking of aperture, the F number is so universally quoted that most photographers regard it as the governing factor in producing any particular effect; but a little consideration will show that this cannot be so. For instance, a hand-camera worker, employing an aperture of F/8 on a five-inch lens and working at a fixed focus, has no difficulty in producing a negative sufficiently sharp for lantern-slide work if his subject does not include very near objects in the foreground, the lens rendering foreground, middle distance and distant objects with almost equal sharpness. If, however, he attempts to do the same with a fifteen-inch lens on a 10 x 12 camera, again using F/8, the resulting negative may possibly produce a fine print of the "naturalistic" order, the foreground and distance being softened down to the exclusion of detail; but reduction will fail to produce a lantern-slide comparable in detail with that taken by the five-inch lens.

To understand the reason for the difference, let us consider the circumstances under which the view was seen by the lens in each case. The five-inch lens saw the view from a standpoint defined by the size of its stop, i.e., from a circle $\frac{5}{8}$ of an inch in diameter; while the standpoint of the fifteen-inch lens was a circle $1\frac{7}{8}$ inches in diameter, or three times as great as the other. Now we understand that our vision is stereoscopic, in virtue of the fact that our two eyes see the same view from standpoints separated by about $2\frac{1}{4}$ inches, the picture impressed on one eye being out of register with that impressed on the other, with the single exception of the object on which our attention happens to be fixed, the lack of register producing subordination of general detail to the interest in the principal object, and also producing the idea of relative distance.

The fifteen-inch lens is therefore in a similar position to a man having many eyes in a circle $1\frac{7}{8}$ inches in diameter, no two eyes seeing exactly the same picture, but all concurring in concentrating their attention on one object — that on which the photographer has focused; while objects at other distances are represented by more or less overlapping and therefore blurred images, according as they depart from or approximate to the plane of the principal object. Similar reasoning, of course, holds with the five-inch lens, but here the overlapping of images is by comparison only $\frac{1}{3}$ as great, the diffusion-circle having only $\frac{1}{3}$ the diameter of that produced by the fifteen-inch lens.



HALLOWE'EN

MARY G. HUNTSMAN

Hence it would appear that the factor which counts in determining the character of the picture is not the F number, but the actual diameter of the stop in inches, and that stops of the same diameter will produce similar results whatever the focal-length of the lens.

It must not be thought, however, that in the similar photographs spoken of the diffusion-circles (so frequently, and so erroneously, standardized at $\frac{1}{100}$ of an inch) will be of the same diameters, for similarity must be held to mean having diffusion-circles of the same size only when the prints are enlarged or reduced to the same size, hence the size of the diffusion-circle will vary with the focal-length of the lens, and if we wish to limit ourselves to $\frac{1}{100}$ of an inch with a five-inch lens we should accept $\frac{3}{100}$ of an inch with a fifteen-inch lens. A moment's consideration will show the reasonableness of this; for while we frequently examine a quarter-plate print with a reading-glass to appreciate the finer details, such a method of examination would be quite out of place with a 10 x 12 print; consequently a degree of fuzziness, which is not only tolerated but looked for in the latter, would not be accepted for a moment in the former.

It becomes, then, necessary to establish a new standard for the size of the circle of diffusion. Since a photographic print should never be examined from a closer standpoint than the focal-length of the lens which produced it, it is obviously unnecessary to require greater fineness of detail than could be recognized at that distance. This requirement will be attained with all except the most keen-sighted if we limit the diffusion-circle to $\frac{1}{100}$ of the focal-length of the lens. This, then, may be taken as the standard of sharpness for high-class technical and record photography. The average photographer, satisfied with moderate sharpness, will range from this figure to about $\frac{1}{30}$ F, while the artistic worker, who subordinates the unimportant planes by rendering them unsharp, will wish to increase the range to perhaps $\frac{1}{25}$ for landscape work and about $\frac{1}{15}$ for genre.

The latter figures represent very distinct fuzziness. We will call this fraction R; i.e., R is the ratio that the diameter of the diffusion-circle bears to the working-focus of the lens producing it.

Then to determine the aperture necessary to produce any desired size of diffusion-circle, the following formulæ hold:

$$(I.) \quad A = \frac{RDd_1}{d_1 - D}$$

$$\text{or (II.)} \quad A = \frac{RDd_2}{D - d_2}$$

Where A is the aperture of the lens R has the meaning previously assigned to it; D is the distance of the object on which we are focusing; d_1 is the distance of the farthest object included; and d_2 is the distance of the nearest object included, all measurements being in inches.

Equation I., dealing with the diffusion-circles of objects more distant than the plane focused on, is the more important; as in the case of nearer objects,



A HALLOWE'EN DREAM

M. A. YAUCK

dealt with in Equation II., a much greater size of diffusion-circle is required before the detail of the object is masked, owing to the large scale in which such objects are represented.

Two general cases of Equation I. may be considered. First, when the subordinate objects are at a considerable distance, which may be taken as approximating to infinity, the equation reduces to the form

$$A = RD$$

Fig. 1, which has been prepared in accordance with this formula, shows graphically the diffusion obtained with any size of aperture up to four inches, with the principal object at any distance up to one hundred feet. Taking, as an example, that we wish to focus on an object situated at fifty feet from the camera, we find that to produce a technically good photograph, in which $R = \frac{1}{1000}$, we must use an aperture of about $\frac{2}{3}$ of an inch, while for a naturalistic effect with $R = \frac{1}{500}$ the aperture is about $1\frac{1}{4}$ inch, and an out-of-focus distance with $R = \frac{1}{250}$ cannot be produced by a less aperture than $2\frac{1}{2}$ inch.

The second general case is when the subordinate objects are at about double the distance of the principal objects, as frequently happens with the backgrounds of figure-subjects. The equation then becomes

$$A = 2RD$$

This is the basis on which Fig. 2 has been prepared. It will be seen that the aperture required for any particular effect in this case is just double that required in the first. All other cases may be approximated with sufficient accuracy for practical purposes from these two, recollecting that the nearer the subordinate

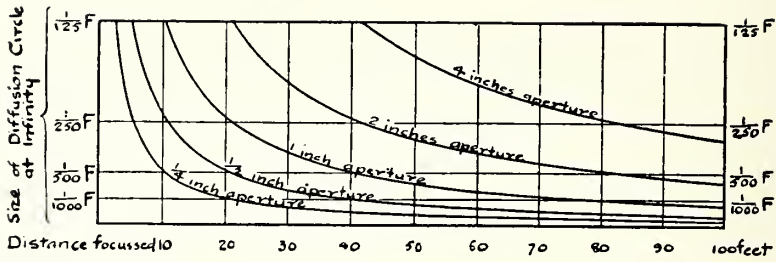


FIGURE 1. DIFFUSION-CIRCLES AT INFINITY

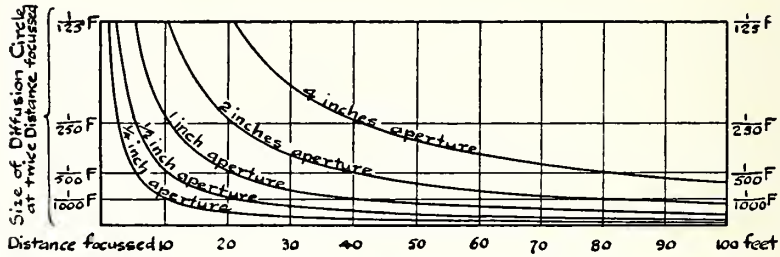


FIGURE 2. DIFFUSION-CIRCLES AT TWICE DISTANCE FOCUSED

objects are to the principal object the smaller the diffusion-circles, while objects at half the distance of the principal object have the same size diffusion-circles as those at infinity.

In conclusion, if a photographer wishes to be able to produce any effect at will, from the broadest to the most detailed, he must not rely on a small camera, which of necessity involves small lenses, as the broad effects in landscape will be found quite beyond its scope. For if we use a quarter-plate camera and a six-inch lens, working at $F/6$, we are limited to an aperture of one inch as a maximum, and subsequent enlargement will not avail to increase the differentiation of planes. It is true that we can secure any degree of fuzziness by throwing our enlargements out of focus, or by making our contact-prints with a thin celluloid film between the negative and the paper, but then we sacrifice the subtle differentiation of planes, found in the pictures of the best workers, for degradation of definition over the whole print; and though this device has its uses in skilful hands, it is not to be recommended as a substitute for the out-of-focus background, which is so effective in suggesting relative distance and subordinating the unimportant parts of a composition to the object of interest.

The would-be artist would be well advised, therefore, to possess (not necessarily always for use at full aperture) lenses with an aperture of not less than two inches; and though this involves at least a whole-plate camera, and a correspondingly heavy outfit, yet the increased range of effect at his command will fully recompense the earnest worker for the extra trouble and expense.—*The Amateur Photographer and Photographic News*.



THE LAUGHING GIRL
E. O. HOPPÉ



EDITORIAL

A Legal Copyright

THE desirability of copyrighting choice photographs, particularly those that are issued for purposes of revenue, should engage the attention of every practitioner — professional as well as amateur. The fee is but fifty cents for each subject, and one dollar when a certificate of registration is demanded. The cost is trifling compared to the profit that may be made by the photographer. Of vital importance is the law to be observed. The copyright-notice should appear plainly on *each individual proof and each finished print*, and in such a manner that it cannot be easily removed or obliterated. It must be borne in mind that if the copyright-notice is incomplete it is neither effective nor legal, and the omission of one word is sufficient to destroy its validity.

The following is the correct and legal form of copyright-notice: COPYRIGHT, 1909, BY J. C. STRAUSS, or, COPYRIGHT, 1909, J. C. STRAUSS. If desired, the word "COPYRIGHT" may be abbreviated, thus, "COPR.," or it may be shortened still further; but this minimum contraction of the word involves a variation of the copyright-notice, and on this point the new copyright-law does not seem to be very explicit. It is well, therefore, to avoid any pitfalls and to adopt the one clear course here recommended. However, if one desires to amplify the copyright-notice by appending the name of his place of business, there is no objection.

Many persons imagine that the process of procuring a copyright of a picture is so complicated as to require the services of a lawyer; whereas it may be effected by any person of ordinary intelligence. Application-forms, as well as copies of the new copyright-act — the provisions of which went into effect July 1, 1909 — may be obtained at any large post-office, or upon application to Thorvald Solberg, Register of Copyrights, Washington, D. C. The print in duplicate is sent, with the application-blank filled in and accompanied by a postal money-order for the statutory fee of fiftycents, or one dollar if a certificate of registration is desired, to the Register of Copyrights. Too much stress cannot be laid on the importance that no print nor a proof be at large before application for the copyright is made, or at any time thereafter. If so, such prints are, obviously, at the mercy of any unscrupulous person and the copyright affords no protection whatever to the proprietor of the picture. Many photographers are quite careless in this matter and then wonder why the copyright-law is not a safeguard against piracy. The copyright-notice should not be printed or written upon the print in white ink. This medium is the easiest of all to erase, and does not leave the slightest trace. A good plan is to place the copyright-notice upon the original negative, or, in the case of a few copies being issued, it may be written in ink on each print. In conclusion, it may be well to state that any unwarranted use of the copyright-notice is a punishable offence.

Success of the Guild Pictures

IT is a source of intense gratification to the publisher of this magazine that the successful prints in the Round Robin Guild contests for the year 1908, which are touring the country, have met such uniform favor. Wherever these pictures have been shown they have excited a high degree of admiration and pleasure. Among the many camera clubs which have exhibited this collection is the camera club of Effingham, Ill., in which city the prints were exhibited for several weeks under the direction of Professor David J. Cook, principal of the Illinois College of Photography. Mr. Cook was more than pleased with the high standard of the work shown by the Round Robin Guild as exemplified by this collection, and compared many of the prints to the best modern paintings as regards composition, atmosphere and theme. He also found the mountings extremely artistic and in delightful harmony with the tones of the pictures. Almost every camera club where the collection has been shown has recognized the admirable results attained through these Guild pictures, and their tendency to uplift the photographic art-science. The wish has also been very generally expressed that they be seen by professional photographers, who, in viewing them, might be encouraged in the direction of greater endeavor along artistic lines. There is so much materialism in professional portraiture — that is, of the kind made in the average studio — that practitioners should study nature with their cameras more than they do, and thus be able to instil into their daily work something besides mere outline and prosaic detail.

American Progress in Photographic Science

THE introduction of orthochromatic or color-sensitive plates, by means of which it is possible to obtain, in monochrome, a correct record of the relative brightness of objects, as seen by the eye, marks an epoch of moment in photographic science. An important feature in the practice of orthochromatic photography is the ray-filter or color-screen, the application of which has been but imperfectly understood by the craft. There has been no definite standard of procedure, nor has the practical side of this subject been effectively presented by our investigators, except in connection with color-photography. It is, therefore, gratifying to know that important research-work and development along practical lines in orthochromatic photography are being conducted at the present time. We refer to the labors of R. James Wallace, late director of physics of the University of Chicago, and now director of the Cramer Research Laboratory, St. Louis, Missouri. The results of his thorough, brilliant and convincing work were amply illustrated at the Rochester Convention last July, and elicited the unstinted admiration of crowds of interested photographers. In the September issue appeared a *résumé* of some interesting work of a practical character by Mr. Wallace, who will embody the results of his scientific investigations at the Cramer Laboratory in pamphlets to be issued by his firm six times a year. A synopsis of these publications will appear regularly in these pages.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

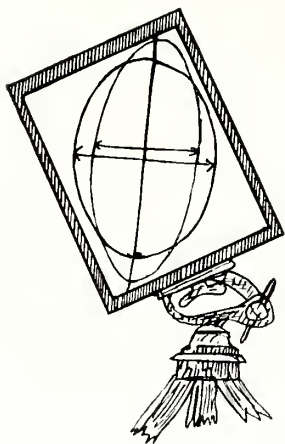
With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

Cabinet Ovals on 4 x 5 Plates

In a recent letter Joseph L. Black, M.D., Palatine, Ill., describes his method of making full-size oval portraits on 4 x 5 plates, which may interest other amateurs who desire to economize. A ball-and-socket attachment for the tripod is the only extra required. At least one commercial tripod is provided with such a head, and attachments of this sort may be had which fit any tripod, enabling the camera to be tilted as shown in the diagram.



On the ground-glass focusing-screen are drawn two ovals, one long and narrow, the other shorter and wider. Within the oval chosen the subject is composed. One bisecting-line serves for both, and provides an easy means of telling when the ovals are vertical. The wide oval is more adapted to busts; the narrow one to full-length figures.

A pleasing variation is obtained by turning the instrument so as to bring the oval to a horizontal position, giving the operator a long space in which to compose groups. For decorative landscapes and water-scenes this position is also very effective.

New Toning-Formulae for Developing-Papers

In a recent issue of *The Amateur Photographer and Photographic News*, C. Winthrop Somerville described three methods of toning bromide or gaslight papers to red, green or blue.

The processes are new and possess the advantage that, with the exception of the red, the original image forms part of the tone-color, and by curtailing or prolonging the toning-time the shade of color is controllable at will. The action of the baths is rapid, while the results are permanent

Formula for Red

Make up the following in the order given:

Ammonium carbonate (saturated solution)	1 ounce
Copper sulphate	10 grains
Potassium ferricyanide	25 "

The precipitate which forms when the copper is added to the ammonium carbonate will be re-dissolved.

Toning should be continued until the shadows are converted. The print is then rinsed for a minute or so and placed in a hypo bath of the following composition for five minutes, and then washed for five minutes:

Hypo	2 ounces
Boric acid	200 grains
Water	10 ounces

Formula for Green

Ferric chloride	1 grain
Oxalic acid (saturated solution)	60 minims
Vanadium chloride (pure)	2 grains
Nitric acid	5 minims
Water to make	½ ounce

Then add, stirring the while:

Potassium ferricyanide	1 grain
Water to make	½ ounce

Tone from one to two minutes; the longer the immersion the lighter the green. Wash ten minutes and immerse in hypo bath given for red tones. Wash five minutes.

Formula for Blue

Ammonia alum (10 per cent solution)	50 minims
Potassium ferricyanide (10 per cent solution)	10 "
Potassium oxalate (10 per cent solution)	30 "
Ammonia iron alum (10 per cent solution)	12.5 "
Hydrochloric acid (10 per cent solution)	2.5 "
Water	1 ounce

Tone until the desired shade is obtained, and wash free from stain. Then immerse in the hypo bath and wash as for green

Sensitizers for Black and Brown Tones

CAMERISTS who are striving solely for pictorial effect often desire to have their prints on papers of texture unlike any which is obtainable ready-sensitized. Some of our readers may, therefore, be interested in the formulæ below, reprinted in the *British Journal of Photography*, of May 14, 1909, from *Der Photograph*. These sensitizers were devised by Dr. C. Stürenburg, are easy to prepare and use, and the prints require only to be fixed and washed.

"For a paper which shall give a black tone, ten grams of sodium phosphate and twenty grams of gelatine are dissolved in 1,000 ccs. of water. To this warm solution, ten ccs. of a 5% solution of shellac in alcohol are added. The paper to be used is dipped in this warm solution and removed and hung up to dry as soon as the liquid has penetrated it. In place of immersion the solution may be applied with a brush, and the dried paper can be kept for any length of time. In order to sensitize it the following silver bath is prepared:

Silver nitrate	120 grams
Boric acid	10 "
Potassium chlorate	20 "
Water.....	1,000 ccs.

The paper is floated on this bath for about five minutes and hung up to dry. Printing takes place very quickly, and the prints are then washed and placed in a plain bath of hypo of 10% strength; again washed and dried.

"A second method (for brown-toned prints) is as follows:

Soft gelatine.....	10 grams
Ammonium chloride.....	6 "
Sodium carbonate	2 "
Borax	2 "
Sodium phosphate	6 "
Potassium bichromate, 10% solution	3 drops
Water	300 ccs.

The above proportions give a deep brown tone. For a black tone, eight grams of borax should be taken and nine grams of sodium phosphate. For sepia tones the proportions should be fifteen grams of borax and two grams of sodium phosphate.

"This warm solution is applied freely to the paper by means of a brush, the paper being pinned to a board. After drying, the paper is sensitized in:

Silver nitrate	15 grams
Lead nitrate.....	15 "
Distilled water.....	240 ccs.

Ammonia is added drop by drop to this bath until a slight permanent precipitate is produced. The bath is then exposed to light until the precipitate has settled, and is then filtered. The paper may be sensitized by liberal application of the solution with a brush. In its sensitive condition the paper will keep a few days. It may be fairly deeply printed, and the prints then given

a few minutes in a 3% solution of salt, rinsed and fixed in a hypo solution containing one hundred and eighty grams of hypo per 1,000 ccs. of water. This is followed by the usual washing."

Photographs on Fabrics

INQUIRIES come to us so often for formulæ for sensitizing fabrics that an article on this subject by H. J. Ralli, in *Photography* for May 25, 1909, will be of interest to some of our readers. By employing the methods described, handkerchiefs, sofa-cushions and other fabrics may be decorated with photographs for souvenirs.

"A solution of thirty grains of primuline and twenty grains of common salt dissolved in four fluid ounces of hot distilled water is prepared. The handkerchief, or a corner of it, is soaked in this solution while still hot for about forty seconds. This will dye the material a yellow color — presuming it to have been white or cream-colored in the first place. It must now be rinsed in cold water, and sensitized by immersion for the same period in a solution of five grains of potassium nitrite, using the pure salt in four ounces of distilled water containing two drops of concentrated sulphuric acid. It is best to drop the acid from the end of a glass rod dipped into it, rather than from the bottle, as only a very small quantity is required. This operation, and a subsequent rinsing in cold water, must be conducted in the dark-room, or at least only in very weak daylight; but lamplight or gaslight as in an ordinary room will do no harm.

"When dry, the silk, which is now sensitive to light, is stretched over the back of a new, or at any rate perfectly clean, printing-frame, and is printed from a glass or film positive for from three-quarters to three minutes, according to the intensity of the sunlight. The action must be continued until a portion of the sensitive surface outside the frame has been rendered colorless. Development and fixing will take place together.

"The operator has the choice of several colors for the picture, which may be produced at will by varying the nature of the developer. For red, beta-naphthol is used; for orange, resorcin; for brown, pyrogallol; and for yellow, phenol.

"All these substances may be obtained at any of the large wholesale chemists. The strength of the developer is in all cases the same, being five grains of the solid to four ounces of water; and a few seconds' complete immersion suffices. A final washing in running water completes the operation.

"An interesting modification of the process can be made by printing two or more subjects on the same piece of fabric by masking, and then developing the two pictures by means of a brush, using a different developer in the two cases, so as to get two different colors."



Read and absorb advanced thought. It is to be found in advanced periodicals, and the photographic list is headed by PHOTO-ERA.

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus.

Preparing Platinum Paper

MANY members of the Guild have asked the editor for a method for sensitizing platinum paper, and to such the reply has been that the description was too long to send either in a letter or to be included in the "Answers to Correspondents" column, and they have been referred to certain books and encyclopedias where formulæ might be found.

During the past month several more of the members have written asking for directions for this process, and also asking explanations more in detail than those given in the encyclopedia. The editor has, therefore, been experimenting a little, and herewith gives the result.

Almost any paper which can be used for other sensitive solutions can be used for the platinum, but the beginner is advised to choose the regular photographic paper, such as the Rives or the Michallet for his first experiments. These papers are practically pure, and for the novice are the best until he becomes skilful with the process of sensitizing the paper.

The paper is first sized, applying two coats and letting the first dry before applying the second. The sizing-solution is made as follows:

Water	30 ounces
Gelatine	150 grains
Alum	90 "
Wood alcohol	7 ounces

Dissolve the gelatine and the alum in part of the water heated to the boiling-point and, when cool, add the wood alcohol. Arrowroot makes a good sizing and has the advantage over gelatine in that the gelatine sometimes leads to the discoloration of the prints. To make the arrowroot sizing, dissolve one-half ounce of arrowroot in cold water, rubbing it to a cream; then add gradually a pint of boiling water, stirring it all the time to prevent it becoming lumpy. If not very smooth strain through cheese-cloth.

The sizing is applied lightly with a wide sable or badger brush. When dry coat the second time, and if the paper is very thin a third coat will be still better.

The sensitizing-bath is composed of two separate solutions which are mixed as they are needed.

Solution A

Ferric oxalate	2 ounces
Water	8 "
Oxalic acid	64 grains

Solution B

Water	1 ounce
Potassium chloroplatinite	75 grains

The solutions for use are mixed as follows: six drams of Solution B, five drams of Solution A and one dram of water. This will give an ounce and one-half of the sensitizing-solution — quite enough to coat several sheets of paper 10 x 12 in size. Potassium chloroplatinite is very expensive, being quoted as sixty cents for a fifteen-grain bottle, so one must learn to use it very economically and never waste it. It takes only a little of the liquid to coat the paper, and is applied with a soft badger brush, flat and rather wide. Work swiftly and use light strokes. The sizing keeps the solution on the surface of the paper and consequently the brushing must not be harsh, as it tends to dissolve the sizing.

The sensitizing-process should be conducted in a room with a dim light, or by gaslight, and the sheets dried as quickly as possible. The faster the drying-process the more even will be the surface of the paper, and the printing-qualities will be better.

FORMULÆ FOR DEVELOPERS

No. 1

Oxalate of potassium	3¼ ounces
Potassium phosphate	1¼ "
Water	33 "

No. 2

Potassium oxalate (saturated solution)	3 ounces
Water	2 "

A saturated solution of potassium oxalate is made by dissolving one ounce of potassium oxalate in three ounces of water.

Sepia tones on the paper may be obtained by taking three ounces of the saturated solution of potassium oxalate, one ounce of a saturated solution of mercury bichloride, one ounce of water, and twenty grains of common salt. This bath is to be used hot.

In preparing the platinum paper to use with weak negatives the sensitizing-solution should receive the addition of potassium chlorate. To

prepare this take four ounces of Solution A and add to it eight grains of potassium chlorate. Then make up the sensitizing-solution with six drams of Solution B, five drams of the solution containing the potassium chlorate, and one dram of water. The addition of the potassium chlorate is for the purpose of increasing the contrast in the print.

The coating of platinum paper is not a complicated nor an unsatisfactory experiment. If one uses care in first sizing the paper well, then applying the sensitizing-solution lightly so as not to roughen the paper, he will find no trouble in the results. Sensitizing one's own paper is always a very interesting bit of photographic work, and whether it is the simple blue-print, or the elusive gum-print, there is much satisfaction in being able to bring these processes to a successful issue.

After being finished the prints look dull or have a sunken appearance as if they were disappearing through the paper. Brushing them over with artist's fixatif will brighten them without making them glossy. This is a great improvement to prints made from thin or weak negatives.

Paper on which prints are made may be given a soft mellow tone by soaking the print in a strong infusion of tea or coffee freshly made.

The tone of the print may be changed by submitting it to different chemical solutions, and any member desirous to manipulate his prints further will find directions for toning in the November number of PHOTO-ERA for 1908.

Platinum Pointers

DURING the last three or four years many changes have been made in the manipulation of platinum prints. Even the coating of the paper commercially has undergone a decided change.

One of the strict rules of platinum printing was that the paper must be kept as dry as possible during the whole process of printing, and until ready for development. All that is changed, and now there are brands of platinum paper made which are decidedly improved in richness of color and depth of tone by being subjected to moisture for a short time between the printing and the developing. One may therefore use this "damp-day platinum" on days when the regular platinum paper would seriously deteriorate if exposed to the action of the atmosphere.

If using the paper on a dry day, then, after the prints are made, they are subjected to the action of moisture. This may be done by laying the prints before development on a table in a dark-room and leaving them there for a short time. Platinum seems to have a tendency to absorb moisture; and even when the air seems very dry, prints thus exposed will be affected by dampness. A quicker way to subject the prints to moisture is to lay the prints face up on the table and set a pan containing boiling water in the room, which should, of course, not be a very large room. The bathroom may be utilized by turning on the hot water and leaving the prints in the room a short

time, the steam imparting the moisture to the paper.

Papers thus treated show a deeper, richer tone if, in addition, they are developed in a developer containing glycerine. The proportion of glycerine is one ounce of glycerine to four ounces of the prepared developer. The glycerine must be thoroughly incorporated with the developer or else the prints have a tendency to streak; but as glycerine readily assimilates with the liquid, there is no danger if one first mixes the solution well.

If the developer is used hot, say of a temperature of 140 or 150 degrees, the results will be still more beautiful in the color of the print. If the shadows appear dull after the print is dried, brush the print over with artists' fixatif, which will not leave any gloss on the print but will bring out the detail in the shadows.

Prints may also be toned by the uranium process, and are entirely different from the toning of prints made on paper which must be kept free from all dampness.



Photography, like all other professions, has its black sheep; but it is noticeable in all that those who promote illegitimate schemes for "raising the wind" soon go up the flue.



Transferring Exposed Plates to a Developing-Tank

[The following article was contributed by Fred Marsch, a member of our Guild. Those who practise tank-development will find the idea well worth trying. Another member has sent a description of his home-made enlarging-apparatus. The picture accompanying it was excellent, beautifully toned and finished. — ED.]

WHEN I began to use a changing-bag for unloading exposed plates into a developing-tank I generally experienced no trouble in getting the first plate safely into the rack, but frequently succeeding plates would be scratched by the sharp edges or corners of those already in place, or those inserted were scratched by plates I was endeavoring to place into adjoining grooves. Other amateurs with whom I discussed the matter had had the same trouble, and one of them finally discarded the changing-bag altogether and returned to the use of the dark-room, so as to have the benefit of the ruby light and be able to see what he was doing. But I welcomed the changing-bag because of the relief it afforded from the many discomforts attaching to even the best of dark-rooms, and determined to overcome the trouble in some way. After a few experiments I hit upon a simple and efficient remedy and, believing that other readers of PHOTO-ERA may have experienced the same difficulty, I submit my plan.

Take large-size writing-paper, or any other paper of good quality, tough and not easily torn,

and cut six strips half an inch wider than the largest dimension of the plates used, and three times as long as the plates' smallest dimension; that is to say, for 4 x 5 plates, paper 5½ x 12 inches, folded into three equal parts, each section being 5½ by 4 inches, the extra half-inch forming a sort of tab to facilitate its subsequent removal. The six folders are put into the changing-bag together with plate-holders and tank.

When only one plate is to be put into a groove each plate is placed inside one of these folders and both are inserted into the proper groove, the folds of the paper protecting the edges of the plate. As soon as all the plates are placed, the folders are gently removed, by grasping the half-inch tabs which project above the plates, leaving the latter in the rack, which is then deposited within the tank, and the cover put on. The bag may now be opened and everything removed from it.

When twelve plates are to be put into a tank having but six grooves, the procedure is similar, except that two plates, back to back, are placed in each folder.

A variation of the above consists in using only two folders, the first of which is removed after the second plate (or pair of plates) is in place, the second folder being removed after the third plate (or pair of plates) has been inserted, etc.

While I have presented this matter from the view-point of the user of a changing-bag, the method is equally applicable and advantageous in the dark-room. It will positively prevent all scratching or marring of the emulsion on glass-plates during the process of removal from plate-holder to tank, and is so simple that it can be put into practice at once.

Intensifying Negatives.

RECENT correspondence has brought many requests for directions for intensifying negatives and prints. There are now on the market a number of preparations for intensifying plates, any one of which will give satisfactory results, the outcome being largely due to the nature of the negative to be intensified. An under-exposed negative can rarely be made into a satisfactory negative, though it may be strengthened in printing-quality. A plate which has been fully exposed and under-developed can, however, be subjected to the redeveloping process, and will repay one for the pains.

The intensifier which is in most general use is mercuric chloride, first bleaching the image in the mercuric chloride solution and then reblackening it in some one of the reagents, such as silver cyanide, ammonium, etc.

Other intensifiers are mercuric iodide, copper bromide, uranium, lead, etc. Mercuric chloride seems to be the favorite, as the method gives much more brilliant negatives than any of the others, so that if one has very weak negatives the choice of an intensifier would fall on the mercuric chloride.

An old and reliable formula is made of ten grains of bichloride of mercury and ten grains of

chloride of mercury to every ounce of water. The plate, well washed to free it from all traces of hypo, is placed face up in a tray, covered with the solution and allowed to bleach. If the negative is to be intensified only a little it must be removed from the tray before the image has turned entirely white. If very thin it is left in the solution until it is white when seen by transmitted light.

When the bleaching-process is complete the plate is well washed and then placed in a solution made up of one ounce of ammonia to eight ounces of water. In this solution the negative begins to darken and finally turns black. The depth of color depends on the strength of the ammonia used. It takes from five to ten minutes to bleach a negative, after which it is washed for at least ten minutes, and the blackening-process takes about three minutes.

Another reagent for blackening the image is the metol-quinol developer. After the plate is well washed from the mercuric chloride it is developed for ten minutes in a developer made by the following formula:

Metol	15 grains
Hydroquinone	7½ grains
Sodium carbonate	¼ ounce
Water	10 ounces

Intensifying with iodide of mercury gives clear and delicate detail in the image. Lumière's formula is one of the best:

Mercury iodide	45 grains
Sodium sulphite (dry)	440 "
Water	10 ounces

Carry the intensification to the required density, wash the plate well and place for five minutes in a ten per cent solution of sulphite of soda. If the intensification has made the negative too dense it can be reduced by placing it in a fresh fixing-bath of the strength used for plates — one to four. If left in the bath long enough the intensification may be entirely removed.

Plates that are not properly washed after being intensified have a tendency to fade, or the image will turn yellow. The plate can be restored by soaking it in a solution of Schlippe's salts, made of the strength of ten grains of the salts to an ounce of water. If the bleaching-solution is too strong it is liable to spot the film. Brown stains on the film are due to the negative not having been washed free from hypo before placing it in the bleaching-solution.

Most amateurs know that the quicker a negative is dried after fixing and washing the better will be the density, but many do not know that a plate which lacks density may be helped by soaking it first in tepid water, just enough to soften the film but not loosen it from the support; then, blotting off the superfluous moisture, holding the glass side towards a moderate heat — the heat from a register will be none too strong — and drying the wet film quickly. This will increase the density of the plate considerably.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.
Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

Prizes

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the price won.

Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

Subjects for Competition

September — "General." Closes October 31.

October — "Vacation-Scenes." Closes November 30.

November — "Glimpses of Foreign Lands." Closes December 31.

December — "Self-Portraits." Closes January 31.

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January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

August — "In the Country." Closes September 30.

September — "General." Closes October 31.

October — "Scenic Beauties of America." Closes November 30.

November — "Group Portraits." Closes December 31.

December — "Flashlights." Closes January 31.

Awards — My Favorite Poem

As the editor of PHOTO-ERA, Mr. Wilfred A. French, is in Europe attending the Dresden Exposition, no Guild awards will be made until his return. Soon after the middle of September the entries in this and the "Outdoor Pastimes" competition will have prompt attention, and it is hoped that the awards in both may be announced in the November issue.

The Forthcoming Competition

VACATION-DAYS are over. We have had our holiday, and now we have nothing left of it but the memory of the joyous hours spent by sea or lake side, in the mountains or the valley, sailing on the ocean or trudging along the open road. Yes, we have something besides the cheerful memory — we of the camera craft. We have visible tokens in our photographs of those halcyon hours, counterfeit presentments of the days which have slipped away into the silent past never to return to us again. Where do they really go, the days which bring to us some joy, take from us some treasure? Some day we may find them all again.

One has a glimpse into his past through the medium of his camera, and in that past are always included scenes of special merry-makings, for the camera seems to be the proper adjunct to such events. Especially is this true of our vacation-days, when our camera is the one thing we will not dispense with; and so we have chosen for our October competition, closing November 30, "Vacation Scenes."

A word about what is desired in these pictures. We do not want landscapes. While they may be the scenes on which our eyes have looked, they do not come within the scope of this competition. What we really want are pictures of some actual pleasure in which we participated. We have had picnics, straw-rides, boating-parties, fishing-parties, berry-parties, etc., etc. There have been gala parties on the water when boats decked out with flowers and gay streamers have floated past in festive procession, or there have been boating-parties at night, when the fleet was hung with many lights which were duplicated in the water. Surely none of us neglected such an opportunity for making an attractive picture. Then there are the days at camp, filled with interesting experiences, and there is the

gipsy fire by the roadside, when we caught and cooked the fish we had just taken from the brook, and roasted the potatoes we had surreptitiously taken from a neighboring field. There is the clambake at the seashore, or the great fire of driftwood on the beach round which we danced the hours of evening away.

Instead of any of these, or kindred pleasures, we may have taken our vacation in some quiet place "far from the madding crowd," where with books and craft work we passed peaceful, restful days. It matters not how we spent our vacation, but we must have of it some pictorial record. The subject is a fruitful one, and we expect a large number of prints.

Now a word as to the making of the prints. First, do not make them on glossy paper. Second, do not send them unmounted. Third, mount them in as artistic a manner as possible, choosing a paper to match the tone or harmonize with the color of the print. Mark the name and title and full address on the reverse of each print. Send in protected wrappings, and you will have done all the necessary preliminaries to ensure a chance of winning a prize.

You'll never see poor work in PHOTO-ERA, and you'll never see an advertisement in that magazine that the publisher can't endorse.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

I. G. LISK.—To copy a negative from a negative, make first a positive on an ordinary plate by contact-printing, then make a second negative from this positive in the same way. Do not varnish your negatives. Very few workers practise varnishing negatives, for the film is now made so hard that there is very little danger of scratching the surface. Then, too, the varnishing is not always a success, and one cannot retouch a varnished plate without removing the varnish.

W. B. TRENT.—Use the very rough platinum or gaslight paper for your portrait and you will get a very fine print. The masses of lights and shadows are too broad to come out well on the smooth paper, but on a rough paper the result would be very artistic; and if you use black and white instead of the sepia the picture will resemble a charcoal drawing. I would keep the same lens which you are now using. It seems to do excellent work, and you might not be so well suited with the other.

MOLLIE F.—The reason of the slanting lines in your pictures of buildings is because your

camera is not level. If the camera is tipped up or down the lines will also run in a slanting direction. This is one of the things which all beginners have to learn, and it is not to be wondered at that you had the same trouble. Learn to see your image correctly on the focusing-glass and then you will be sure to get satisfactory results in your pictures.

ALLEN G.—The trouble with your fixing-bath is that it is too weak in hypo. The strength of a fixing-bath should be at least one ounce of hypo to four ounces of water. Do not use the fixing-bath repeatedly. As soon as it begins to discolor throw it away. Hypo is so cheap that one can afford to use a fresh bath with each batch of plates.

NELSON A.—You will find in the August number of PHOTO-ERA answers to your questions in regard to blue-prints. Evidently you did not see the August number or you would have seen this article on the blue-print. Blue-prints are not included in the prints for competition. The blue-print does not reproduce well, hence it is barred from our competitions. The blue-pencil for glass or china will be what you want for retouching your negative from the glass side.

THOMAS C.—To clear the fog or veil which seems to cover your negative make up a saturated solution of hyposulphite of soda, mix it with glycerine in equal proportion, and spread over the negative or lay it in a tray and turn the solution over it. Let it remain for several hours. If very much veiled it will take perhaps twenty-four hours to clean the plate. This solution will clear a very badly veiled negative even if the trouble is of long standing.

BERTHA B.—Large sensitive plates may be cut into smaller sizes, but it is rather a delicate process. Lay the plate face downwards on a perfectly smooth surface; then, with a rule laid in place, run the glass-cutter close to the edge of the rule, bearing on firmly. Bend the glass toward the film first, then backwards, to ensure a clean cut along the film as well as the glass. I would advise you to try to exchange your large plates for smaller ones, rather than to attempt to cut them into smaller sizes.

J. L. R.—Persulphate reducer is used in the proportion of twenty-five grains of the ammonium persulphate to an ounce of water. Place the plate, which has been previously dried, in this solution, and, when sufficiently reduced, place it for fifteen minutes in a ten per cent solution of sulphite of soda. Wash well and dry. The ammonium persulphate attacks the high-lights first, so that this is a specially good reducer for plates which have too much contrast.

CHARLES D.—One of the best formulæ for eikonogen developer is made of one and one-half ounces sulphite of soda in crystals, one-half ounce of hydroquinone, thirty ounces of water. A second solution is made of one ounce of carbonate of soda to ten of water. To mix the developer ready for use, take an ounce of each solution and add to it two ounces of water. This is the proportion in which the developer is used.

Eikonogen gives a negative full of detail, and with soft contrasts. Keep the bottle of eikonogen well stoppered. See answer to D. A. T. in this number.

SARA D.—The negative which makes the most satisfactory enlargements is one which has plenty of detail both in the high-lights and in the shadows, and which has no very marked contrasts. You ought to make a very fine enlargement from the negative, the print of which you enclose.

DAVID C. W.—If you intend to take so large a group by flashlight it would be wiser to have the room itself well lighted by artificial light. This will not only help the shadows, which are apt to be very dense, but will also prevent the staring look in the eyes which is so often a marked feature of flashlight groups. If you use the flash-sheet and interpose a very thin muslin screen between the sitters and the direct light you will get a more satisfactory picture as regards the lighting.

HELEN PRESTON.—Sulphite of soda is used in the developer as a preservative. It oxidizes readily on being exposed to air, as shown by the coating of powder. This should not be put into the developer. Sulphite of soda, as well as being a preservative of the developer, also acts as a restrainer. Sulphite of soda is also used for blackening negatives which have been intensified with bichloride of mercury.

S. O. L.—Adurol costs sixty cents an ounce. It is a very good developing-agent for portrait-work and also for the development of enlargements, for it gives clear whites and deep, rich blacks. It will keep indefinitely, for it does not oxidize readily.

BEN. M. DENT.—You can have a multiplying-attachment fitted to your 8 x 10 camera. This attachment will allow from one to thirty-six exposures to be made. The price would be about twelve or fifteen dollars.

F. T. E.—To harden the film of a plate and make it impervious to heat soak it in a ten per cent solution of formaldehyde. This can be done while the plate is still wet, and then subjecting it to heat to dry it will not soften the film. Use non-halation plates for your interior views where you include windows in the picture. This prevents the fogging of the plate around the windows.

GRACE D. M.—No, it does not make any difference if the pictures which you wish to submit in the competition "Glimpses of Foreign Lands" were taken a year ago. We do not expect our Guilders to go abroad for the express purpose of getting pictures for this competition, but we want the very best and most original picture which the contestant has made.

CARL B.—Do not send unmounted prints to the competitions. They are very apt to be bent or marred in transportation and in the unpacking and handling. Then, too, an unmounted print never stands so good a chance of winning a prize as when it is tastefully and appropriately mounted. Mark each print with full name and address.

KATE RICE.—Use the Virida paper to protect your plate while developing an autochrome. This paper is made expressly for superimposing between the light and the plate, and makes a perfectly safe light. It is not specially bright, but gives sufficient illumination to judge the progress of the development.

H. L. FELTON.—I think the solution to which you refer is called Etchine. This is used for sensitizing postals and paper, and also for silk and linen. The prints are toned in any good gold-toning or platinum bath. The process is very simple, and the results very satisfactory.

F. H. M.—Use a glass funnel instead of tin or granite for filtering your solutions. Tin is not a safe metal to use with photographic solutions, as some of the chemicals act directly on the tin, producing a change in their elements. The glass funnel is not only quite safe, but is very easily cleaned. A new make of funnel has a groove on the side so that the air is expelled while filling the bottle. There is also a very handy piece of apparatus for the dark-room which combines the graduate and funnel, the funnel when inverted making a cover for the graduate. The graduate holds a quart, and the price of the article is fifty cents.

JAMES D.—Photographs such as you enclose find a ready sale in farm papers and in papers which use material for children. One of the members of our Guild sells a great many photographs of children to the Sunday-school papers. They are always in the market for interesting pictures of children. See advertisements in the September PHOTO-ERA.

D. A. T.—The trouble with your developing-solution which has turned dark by standing is that it has oxidized. Some chemicals are very susceptible to oxygen, and unless carefully stoppered will oxidize very quickly. To prevent this, when setting away a solution which must stand for some time, turn paraffin wax over the cork and neck of the bottle and it will seal it effectually.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"SAILING O'ER SUMMER SEAS," G. F. D.—This print shows a yacht sailing along on smooth waters, and so placed on the plate, and so arranged as to lighting, as to bring the boat directly in the path of light which shines across the water. This leaves the whole of the boat in shadow, so that it is almost like a silhouette against the sky. This is a very interesting bit of composition, and

well balanced. Its great fault is in the mounting. It has been trimmed to a circle, and consequently much that ought to be in the picture is cut off, besides making conflicting lines, the form of the print being at cross-purposes with the lines of the ship and of the far horizon. It is only now and then that a picture will stand being trimmed either in circular or oval form. The composition must conform by curves to the form of the print if one wishes a successful combination.

"EVENING," H. L. J.—This picture would not be criticized were it not for the fact that the editor receives many similar subjects. In most of the pictures thus taken the clouds are heavy and black and the high-lights strong, owing to the contrast between the light and the clouds when the camera is pointed directly at the sun. Such pictures should be taken with a large stop, and the focus should not be sharp. It is only occasionally that a good picture of this kind is received. In this particular print there is nothing to help the composition in the way of lines, the camera having been pointed straight at the setting sun and over a perfectly flat landscape. It is the long lines in the landscape which make or mar a picture of this kind.

"A STUDY IN LINES," N. R. E.—This is a very pleasing picture of a girl with her arms full of trailing vines. The hair, which is unbound, hangs in a graceful sweep over one shoulder,

while on the opposite side it is massed in the shadow and partly hidden by the leaves of the vine. The drapery is long and very soft, being of some gauzy material in a dark tone. The head is uplifted, making still another line of the throat and neck, and the whole composition is a study in artistic curves, one supplementing the other and completing a charming whole. The criticism of this print—the adverse one—is the manner of printing and mounting. The print is on a half glacé paper in brown tones, and the mount is a dull gray. Printed on rough paper and mounted on a paper of similar tone to the print it would be an admirable piece of work.

"IN THE FOREST," C. N. B.—This picture might also bear the title "A Study in Lines," though the lines are in a direction directly opposed to the picture on which comments have just been made. It is a study in tree-trunks, and is specially well done. It shows the growth of great trees up to where they begin to branch, while in the distance the upper part of trees are seen as well. This picture is specially to be commended for its lighting. The shadow is on the side of the tree next to the spectator, and consequently the trunks of the trees have roundness—something which is lacking when the trees are flatly lighted. This print would bear trimming about an inch at the left, thus bringing the principal objects into more harmonious positions.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
AnSCO Film, N. C. and Vidil	Hammer Extra Fast	Class 4
Cramer Crown	Hammer Extra Fast Ortho	Stanley Commercial
Cramer Crown Non-Halation	Hammer Non-Halation	Class 5
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Cramer Commercial
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Plain
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Ortho
Cramer Trichromatic	Seed L. Ortho	Defender Ortho Slow
Defender King	Seed Non-Halation	Hammer Slow
Defender Ortho Inst.	Standard Extra	Hammer Slow Ortho
Eastman N. C. Film	Standard Orthonon	Class 8
Ensign Film		Cramer Slow Iso
Hammer Special Extra Fast	Class 1 1/2	Cramer Slow Iso Non-Halation
Imperial Special Sensitive	Lumière Ortho A	Class 12
Imperial Orthochrome Special Sensitive	Lumière Ortho B	Defender Queen
Kodoid	Lumière Panchro C	Seed Process
Magnet		Class 100
Premo Film Pack	Class 2	Lumière Autochrome
Seed Gilt Edge 27	Cramer Medium Iso	Lumière Red Label Slow
Standard Imperial Portrait	Cramer Medium Iso Non-Halation	
Standard Polychrome	Halation	
Stanley Regular		

The Round Robin Guild Exposure-Guide For October

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of October on any fine day at noon, when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used; also between 9 and 10 A.M. and 2 and 3 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. At 11 A.M. and 1 P.M. increase the exposure one-fourth. From 10 to 11 A.M. and 1 to 2 P.M. increase it one-half. From 8 to 9 A.M. and 3 to 4 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class ½	Class 1	Class 1¼	Class 1½	Class 2	Class 2½	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds	1/800	1/400	1/320	1/256	1/200	1/160	1/100	1/80	1/64	1/50	1/32	1/4
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides, well-lighted street scenes; persons, animals and moving-objects at least thirty feet away	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
Portraits outdoors in the shade; very dark near objects	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
Badly-lighted river-banks, ravines, glades and under the trees	1/6	1/3	2/5	1/2	2/3	4/5	1 1/3	1 3/5	2	2 2/3	4	32
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	1/2	1	1 1/5	1 1/2	2	2 2/5	4	4 4/5	6	8	12	96

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

OUR ILLUSTRATIONS

CHARLES K. ARCHER has given us a timely and pleasing frontispiece in "The Arbor." The effect of sunlight through the vines, on the dress and particularly on the sleeve, is especially pleasing. The composition is extremely symmetrical, due to the straight vertical and horizontal lines, yet it is not displeasing. Data: 3 P.M.; bright sunlight; $3\frac{1}{4} \times 4\frac{1}{4}$ camera; R. R. lens, $5\frac{1}{2}$ -inch focus, f/8; Ideal ray-filter; Ortho-thon plate; 1 second exposure; Metol developer; Velox enlargement.

"Fraserburgh Sands" is another of our collection of sea-and-sky studies in which William Norrie delights and succeeds so well. It is his aim to record the more unusual of the beautiful effects of nature, and the present example is one of his best. Here is found an obviously logical reason for the brightness of the water, and a convincing example of the value of a low horizon-line in conveying the idea of distance. The curve of the water-line is grace itself. No data are available.

"Peter von Lith" is one of the many superb speaking likenesses in which J. C. Strauss may justly take pride. Mr. Strauss is eminently successful in making his patrons forget his lens, thereby securing characteristic attitudes and honest good nature. No data are available.

Kipling's words and a happy chance gave to William H. Phillips the inspiration to photograph "East is East and West is West." Here the Orient compares notes with the Occident, and certainly the onlooker is given food for thought. Although purely a snapshot, a good genre group is the result. Data: June; early afternoon; bright sun; $3\frac{1}{4} \times 4\frac{1}{4}$ Kodak; Goerz lens, $4\frac{1}{2}$ -inch focus, U. S. stop 4; $\frac{1}{2}$ second exposure; Kodak film; Rodinal developer; Royal Velox enlargement.

George T. Power's "Ready for the Fray" is excellent, well lighted and well spaced. The hands are an important feature, and it is unfortunate that there is not even a suggestion of a little finger on the left hand. But for this the portrait would be almost perfect. As a type the boy has the appearance of being of too studious a nature to enjoy our great college game. Data: November, 2 P.M.; north window, cloudy day; 5×7 Century camera; Plastigmat lens, $9\frac{1}{4}$ -inch focus, f/6.8; 4 seconds' exposure; Seed N. H. Ortho plate; metol-hydro developer; platinum print.

Sea and sky, but particularly the latter, are the theme of "The Storm Approaches," by W. J. Street. Seldom have we seen great majestic thunder-heads so well rendered as in the present instance. The dark smoke is effective against the lighter background, and the ferry furnishes a touch of life which, in contrast with the clouds, symbolizing the might of the ele-

ments, causes the thinking person to realize how small is man, after all. No data are available.

Harold A. Taylor's "Sunset, Coronado Beach," like Mr. Street's marine, is an example of beauties on the Pacific coast. Here, however, little is suggested other than the glories which the eye can see. The composition is rather solid and symmetrical, but this is not at all out of harmony with the thoughts usually associated with the vast and majestic Pacific. Data: late afternoon; U. S. stop 16, $\frac{3}{5}$ second exposure; Ortho-thon plates; pyro-metol developer; Royal Velox print.

The success of A. A. Bishop, of Newport, Vt., at the New England Convention at Boston, in August, was phenomenal. Both the Grand Portrait award and the first prize in the Regular Portrait Class, as well as the second in the Genre Class, were won by him. We reproduce in this issue one of the best of his successful prints. It is straight photographic portraiture of the best sort, depending for its success upon no dodges or subterfuges of any kind. It is thoroughly artistic, and at the same time the sort of portrait the average person likes to have. Data: November; subdued light; Darlot lens, stop f/30; 6 seconds' exposure; Standard plate 8×10 ; pyro developer; Angelo sepia platinum print.

"Hallowe'en," by Mary G. Huntsman, is a distinctly pleasing autumn genre, the delightful firelight effect combined with a considerable amount of detail and softness on the shadow side having probably been the result of a combined flashlight and daylight exposure. Data: 3 P.M.; flashlight; B. & L. lens, 10-inch focus, stop U. S. 4; Seed 27 plate; eiko-hydro developer; Angelo sepia platinum print.

A pretty little story is told by Mr. M. A. Vauch's "A Hallowe'en Dream," which is spontaneous and true to life. A little trimming on the bottom and right side would give variety of spacing and take the figure from its present rather central position. No data are available.

"The Laughing Girl," by E. O. Hoppé, is one of the comparatively few attractive things of its kind. Very often the photograph of a person laughing is far from pleasing, but such is not the case here. The picture has something of the "bigness" seen in much of the work by Mr. Hoppé, while the slight backward tilt of the head, enhanced by the hat, tends to increase the effect of merriment. Data: 11 A.M.; good light; Dallmeyer lens, f/8; 3 seconds' exposure; Imperial plate; pyro-soda developer; albumen print.



You will find the stones you have thrown at others to-day in your pillow to-night.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

July 6, 1909, continued

926,970. COMBINED MOVING-PICTURE TAKING AND PROJECTING-APPARATUS. ROBERT L. WATKINS and ROBERT HEAD, New York City.

A device for taking a series of pictures through a microscope, and also for projecting them upon a screen after the manner of a kinoscope.

927,063. MAGAZINE PLATE-HOLDER FOR CAMERAS. E. L. C. MORSE, Chicago, Ill.

A device which admits of the insertion and consecutive exposure of a relatively large number of plates, and their transference to a storage compartment after use.

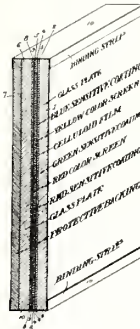
927,116. METHOD OF PRODUCING PHOTOGRAPHIC REPRESENTATIONS OF STRUCTURAL DESIGNS. CHARLES CLEMENTS, Boston, Mass.

This patent covers a method of producing representations of structural designs intended to convey to the average mind an adequate idea of the texture, grain or other superficial characteristics of the materials to be used in the finished structure. It consists in drawing the design as usual, pasting over the various surfaces represented photographs cut to proper size and representing the natural appearance of the material to be used in the finished structure, and finally photographing the composite surface so formed.

927,244. FILM-PACK FOR THREE-COLOR PHOTOGRAPHY. FREDERICK E. IVES, Weehawken, N. J.

This invention provides a means for producing the three negatives required in three-color photography by one exposure in an ordinary camera. To one side of a glass plate 1 is applied a film 2, preferably of bromide of silver in gelatine with exceptionally fine grain and transparency, and sensitive chiefly to the blue-violet and ultra-violet rays. This plate is to be placed in the camera with its uncoated face toward the objective. As it absorbs most of those rays to which it is sensitive, it serves as a color-screen for the succeeding element, a green-sensitive film; but as the absorption may not be perfect for this purpose, it is necessary to flow over the face of the blue-sensitive film an alcoholic solution of a water-soluble yellow dye of suitable shade and intensity to make the combined absorption act as a suitable screen for the green-sensitive film. The evaporation, or drying off, of the alcohol leaves a superficial color-film 3 all on the surface, and not diffused into the gelatine film, and of such exceeding tenuity as to add practically nothing to the material thickness of the sensitive plate or number of reflecting surfaces. The second element is thin celluloid or collodion 4 coated with the green-sensitive, bromide of silver and gelatine, film 5 coated with the film side away from the film on the first plate. The third element is a plate 6 of glass coated with a red-sensitive gelatine bromide film 8, and the plate 6 is backed with a sheet 7 of black paper impervious to light. This plate 6 with its sensitive film 8 is first coated with an alcoholic solution of a water-soluble red or orange dye to supplement the absorption of the blue-sensitive and

green-sensitive films and thereby constitute a suitable screen for securing a correct record of the red color, the evaporation of the alcohol leaving, as in the case of the blue-sensitive plate, practically no added thickness to the plate or the number of reflecting surfaces. The plate 6 with its sensitive film 8 and coated with the film 9 is placed with its sensitive film 8 against the green-sensitive film 5. The three sensitive surfaces are then practically in material contact, being held perfectly flat by the glass plates, which also protect them from injury and exposure to the air. The edges are finally bound with a strip of paper after the manner of the lantern-slide. After exposure the elements of the pack can be readily



separated one from another by cutting the binding-strips, and the separated films can be developed, fixed and washed in the usual way, in order to obtain the three negatives required for carrying out the various three-color processes, the water-soluble alcohol screen and the red-sensitive and blue-sensitive plates being removed by the dissolving action of the liquids to which the plates are subjected in performing these operations.

July 13, 1909

927,875. KINOSCOPE. ALVA C. ROEBUCK, Chicago, Ill.

An improvement in the construction of a kinoscope described in a prior application, serial No. 425,094. The object is to provide an arrangement in which the two continuously-running feeding or loop-forming sprocket-drums have a vertical, shiftable relation to the main drum, and in unison with the intermittent feeding sprocket-drum, so as to ensure a more uniform length of the loops in the film and thus contribute to the steadiness of the pictures as projected on the screen, and at the same time retain the advantage of holding the kinoscope-shutter in fixed relation to the light-aperture of the apparatus.

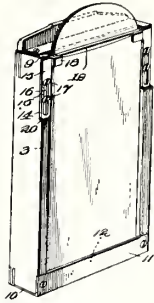
927,897. CAMERA. ASA W. STRAIGHT, Chicago, Ill.

A device for using small plates loaded into small holders of proper size, in large cameras, thus avoiding the weight of extra camera-backs or holder-kits. All that is required to

carry out the invention is a thin frame of wood or metal provided with a central light-opening the same size as the plate to be used, and which is placed in the front of the camera-back to furnish a bearing for the plate-holder. Two small rods across the frame of the focusing-screen are necessary to prevent breakage of the glass by spring-pressure with the small plate-holder.

928,379. ADAPTER FOR PHOTOGRAPHIC FILM-PACKS. HARRY M. R. GLOVER, Rochester, N. Y.

A simple holder for using film-packs with plate-cameras, comprising one member, having no movable parts other



than the slides of the locking-means for holding the package of films in place. No hinged plate or other backing for holding the film-package is required, as in previous adapters of this sort.

July 20, 1909

928,443. CONTINUOUS-FILM KINETOSCOPE.

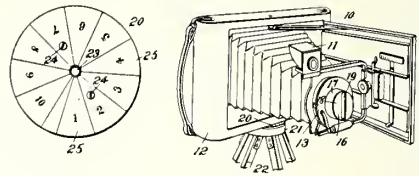
CHARLES B. GILLESPIE, Ridgeville Corners, O.

This type of apparatus, described in patent 921,537, enables the film to be drawn from the interior or middle convolution of the film-roll to the take-up reel, so that rewinding is unnecessary. The object of the present invention is to so construct the film-reel that it may be employed alternately to feed and take up the film; also to so construct the improved reel that the whole film, excepting a few feet, is enclosed in a fire-proof magazine transferable with the reel proper, so that the danger and delay incident to removing the reel from one magazine and inserting it in another are avoided.

928,724. METHOD AND MEANS OF MAKING PANORAMIC PHOTOGRAPHS. EDWARD N. WHITE, Holquin, Cuba.

By means of a slotted cap over the lens and a dial on the tripod-head panoramic pictures are possible with any ordinary film-camera by making successive exposures so blended together that no line of distinction is visible. The slotted cap cuts off a part of each exposure at each end as the camera is moved into its successive positions, so as to decrease gradually from a full exposure to nothing at each end. Each picture or exposure is made to overlap the next preceding one at its ends, and the overlapping portion of one exposure is such that it will compensate for the lack of exposure of the next one, so that when two succeeding exposures have taken place the results of the two exposures at the overlapping portion are completely blended or merged one into the other, and the succeeding views or exposures will make a single and continuous photograph. Means are

provided whereby the camera may be moved a proper distance, so that succeeding pictures will overlap the desired extent. This consists of a dial 20 on the head of the tripod,



and is provided with a series of divisions which may be numbered consecutively and which are made to correspond to the distance the film is to be moved after each exposure.

928,804. SAFETY SHUTTER FOR MOVING-PICTURE LANTERNS. WM. N. SELIG. Assignor to Selig Polyscope Co., Chicago, Ill.

A safety shutter working by gravity which can be closed in a fraction of a second in case of emergency by pressing a release-lever, thus cutting off the light and avoiding ignition of the film if its movement has been stopped through an accident.

928,914. FLEXIBLE PHOTOGRAPHIC PLATE OR FILM. MAX HANSEN, Paris, France.

A pliable photographic plate or film consisting of a basis of transparent flexible material supporting a sensitive medium and a hyalin layer interposed between the basis and the sensitive medium of such thickness as to cause shadows arising in printing-out, owing to the structure of the basis, to be effectually diffused by dispersion of light.

July 27, 1909

929,195. PHOTOGRAPHIC PRINTING-CABINET. ORTHO C. CORTRIGHT and ALBERT D. MIKA, Fort Madison, Ia.

A cabinet provided with light-excluding doors and means for holding and adjusting a negative in proper position. The apparatus facilitates the use of a web of sensitive paper, so that several prints may be made upon it readily. Vignettes may be used, and the closing of the printing-frame automatically exposes the paper through the negative.

August 3, 1909

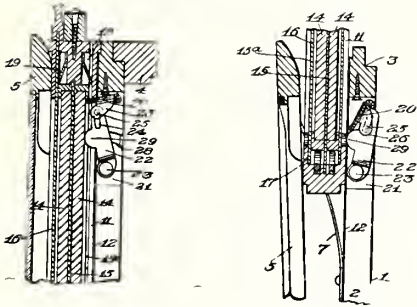
929,648. CAMERA. F. A. ANTHONY, Hackensack, N. J.

A device for making four or more exposures on one plate or film. It consists of a box divided into the required number of compartments, with an exposure-opening in the front of each. The lens and shutter are mounted on a circular revolving disk outside the camera, the lens being so located that as the disk revolves the lens will register with the several exposure-openings in succession.

929,671. CAMERA-BACK. TRUMAN W. INGERSOLL, St. Paul, Minn. Assignor to Eastman Kodak Co., Rochester, N. Y.

A device on the camera-back giving additional safety against the light-striking of plates or cut films. It is adapted to styles of plate-holders now in general use, thus obviating the necessity of supplying a special type of holder in order to take advantage of the improvement. Before the plate-holder is inserted and the frames 1 and 5 on the back are in contact, the flap 20 is moved by its springs rearwardly be-

beyond the rear surface of the frame I to seal and close the joint between the frames at the point of insertion of the holder. Upon inserting the holder, and by slightly separating the frames, the advancing edge displaces the flap which yields inwardly, as shown in the right-hand figure, and then subsequently moves outwardly to project within the plate-holder-frame and into engagement with the shutter 16. When the shutter is being withdrawn just before exposure the flap engages it throughout its length, while after the shutter is entirely removed from the holder the flap operates instantly to close the opening 15a in the latter. Upon again inserting the shutter after exposure it is convenient for the operator first to insert the corner of the shutter as a means for guiding it as a whole within the narrow opening, but it not infrequently occurs that the flap 19 is displaced in this way before the body of the shutter has filled the opening,



thus admitting light to the plate; but in the present construction this risk is obviated, as the flap 20 on the camera-back is still in a position to close the opening and the two are displaced successively, so that one or the other is at all times performing its functions.

929,678. APPARATUS FOR EXHIBITING MOVING-PICTURES. JOSEPH E. LOCKWOOD, Detroit, Mich. A compact coin-in-the-slot mechanism for automatically exhibiting moving-pictures by electric motive power. The cabinet is relatively small, and at the same time relatively large pictures are shown, with means to guard against ignition of the film by heat from the lamp.

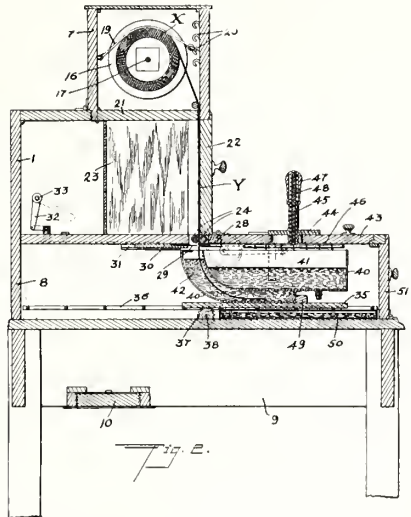
929,743. KINETOSCOPE. EARLE M. WOODEN, New York City.

This invention relates to the movement of the film, the improvement consisting of mechanism whereby the dwell is relatively longer and the period of movement of the film relatively shorter than is now possible, so that the flicker of the images on the screen shall not be appreciable. At the same time, provision is made whereby it is impossible to skip or overthrow, and each picture on the film, therefore, receives its proper exposure on the screen.

929,757. PHOTOPLANOGRAPH. CALVIN J. ELLIS, Omaha, Neb. Assignor to the Cameragraph Co., of Arizona.

The purpose of this device is to make photographic copies of plans, legal documents and the like. It consists of a copying-camera and easel for holding the copy, as well as an angle-mirror back of the lens to reverse the image right for left, so that the photographic copy will be in a normal or positive position rather reversed or negative. These features

are well understood. The novelty consists of a means for exposing and developing prints which is shown in the rear sectional drawing. The sensitive paper is fed from a roll X through the chamber below where it is exposed at Y, the image being reflected from the lens by the mirror 23. After exposure the feed-crank outside the machine pushes the paper edgewise down into the developing-pan 42. When the developing-time has elapsed the table 35 is racked to the left,



thus drawing the print into the fixing-pan 41, where the print is cut off from the strip by the knives 28 and 29, actuated by a lever on the outside of the casing. Pressure on the handle 47 lowers the immersing-frame 46 to cover the print in the fixing-bath. When several prints have been made the cabinet is opened and the prints removed for washing.

929,807-9 inclusive. COMBINED PORTABLE PHOTOGRAPHIC APPARATUS AND DARK-ROOM. JOHN B. WILLYERD, St. Louis, Mo.

This compact apparatus is particularly adapted for making negatives, developing and fixing, and then printing pictures from the negatives upon sensitized sheets or cards which, in turn, are developed and fixed in the same solutions.

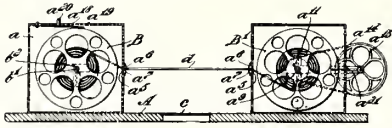
929,987. DEVICE FOR TIMING PHOTO-PRINTING. RICHARD E. SCHARZ, Oakland, Cal.

A compact printing-meter to be attached to the edge of a printing-frame. It consists of a graduated pattern-plate having a scale of varying densities, which fits into a metal holder having a spring-actuated back which holds a sheet of sensitive paper in contact with the pattern-plate. The number of sections of this plate which print through indicates the time of printing for the negative proper.

930,037. SAFETY APPLIANCE FOR REELING MOVING-PICTURE FILMS. NATHANIEL H. BROWN, Assignor to Williams, Brown & Earle, Philadelphia, Penn.

This invention consists of two housings enclosing film-reels. The film in passing from one to the other crosses a

glass plate C in the base, below which is a strong light. Thus, the operator in rewinding films to be used again in the magazine of a moving-picture machine may examine the film to



correct inequalities, ragged edges and repair breaks. The source of light being at some distance from the film and with the glass plate C interposed, there is no danger of fire.

August 10, 1909

930,378. PHOTOGRAPHING-MACHINE. FRANK M. HOLMES, New York City.

A compact apparatus for taking original photographs or copies of other pictures, and developing and fixing them ready for delivery. The sensitive plate is located and all the operations are conducted by simple mechanical means.

930,578. COMPOUND FOR THE TREATMENT OF PHOTOGRAPHIC PRINTS. CHARLES B. WAITE, Mexico City.

The compound consists of a solution containing potassium cyanide, one ounce; ammonia (28%), ten drams; borax, twenty grains; carbolic acid, three drams, in ten ounces of water. The preparation is applied to the prints with a tuft of cotton, after which they are again placed in the fixing-bath and thoroughly washed. Yellow or brownish stains are in this way removed, and the color of prints which are too dark is also reduced.

930,621. PACKING FOR LIGHT-SENSITIVE LAYER-CARRIERS. JOSEPH SCHMÜCK, Steglitz, Germany. Assignor to the firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, Germany.

The film is indicated on the drawing by a, the light-tight envelope by b and the closing-member by c. The closing-member c squeezes with its front-edges the open end of the light-tight envelope b and also grips the film a. When



arranging the parts the closing-member c is first firmly pressed onto the edge of the film a, the free edges of the closing-member not being subjected to any pressure, so that the open end of the envelope b may be pushed between the free edges of the closing-member. As soon as this is done the free edges of the closing-member c are also subjected to pressure, sufficiently forcible to assure a light-tight closing-joint and at the same time allow the withdrawal of the envelope from the closing-member.

930,651. PRINT-WASHING MACHINE. FRANK W. EMERSON, Providence, R. I. Assignor to Emerson Supply Co., Providence, R. I.

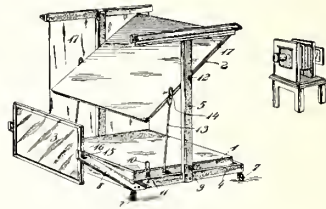
This machine is intended for washing large blue-prints and the like taken from plans and tracings. It consists of a polysided prism-shaped drum mounted on a central shaft to be rotated in suitable bearings and supported in a frame,

the lower portion of the drum being immersed in a bath of water retained in a suitable tank for the purpose of washing the chemicals from the face of the print as the drum is rotated therein. A sprinkler-pipe extends along the length of one side. Here the water enters and is sprayed upon the entire width of the print, escaping through outlet-pipes in the bottom of the tank.

August 17, 1909

931,050. PHOTOGRAPHIC APPLIANCE. GASSNER F. FRALEY, New York City.

The parts of this device are so constructed and arranged that objects of various shapes and sizes may be presented in the proper relationship to one another and in the same focal plane. By its use the photographs taken will not be distorted and the lighting may be adjusted to produce the



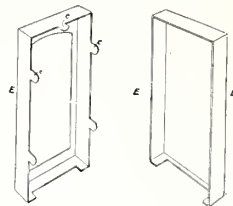
best effects Both the base 1 and the mirror 2 are pivoted and may be adjusted into the desired angular relationship and locked by the bolts 14, so that the adjustment remains the same as the parts are tilted into their different positions. 3 is a pivotally-supported prism-reflector, so that the light is reflected in right lines from it onto the articles to be photographed. Curtain 17 may be raised or lowered to modify the light.

931,485. AUTOMATIC PHOTOGRAPHING-MACHINE. JOSEPH F. RADERS, New York City.

An electrical apparatus of the coin-controlled class for producing photographs automatically. A sensitized plate is delivered from a magazine, exposed, developed, fixed, washed and then passed to the exterior of the apparatus.

931,525. DAYLIGHT-LOADING PHOTOGRAPHIC FILM-PACK. JOHN E. THORNTON, Altringham, England.

A simplified film-pack which cheapens the cost of manufacture and avoids much handling of the films in packing. Its chief advantage, however, is the ease with which the two sections of the case may be opened and closed again as



frequently as desired for the removal of films to be developed before the contents of the whole pack is used. The case consists of two parts as shown, one having bent-over flanges c of metal to hold the other part within it. These flanges can be bent and rebent without breaking.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions
are solicited for publication

Boston Camera Club

THE contest of last year proved so successful that the club has determined to hold a second exhibition in the fall of 1909, open to amateur photographers residing within a radius of fifty miles of Boston.

There is no limitation to the subjects to be offered, and any amateur photographer living within the radius mentioned may enter one or more specimens of his work, subject to conditions which will follow.

The following prizes are offered for this contest: first prize, Silver Shield; second prize, Bronze Shield.

Following are the conditions:

1. All photographs submitted must have been made from negatives exposed since Jan. 1, 1909, and may be in any medium except blue-prints.

2. Photographs sent in for exhibition may be either framed or mounted without glass, but if passe-partout mounting is used the rings on the back must be fastened through the board and not glued to the surface.

3. All photographs should be securely packed and addressed: "Exhibition Committee, Boston Camera Club, 50 Bromfield St., Boston, Mass." If sent by express the charges must be prepaid. All prize-winners shall become the property of the Boston Camera Club. The club will not be responsible for loss or damage of prints. Prints will not be returned unless return charges are enclosed with the exhibit. The name and address of exhibitor must be placed on the back of each mount. The club shall be at liberty to allow reproduction of any accepted print in articles in newspapers and magazines relating to the exhibition, unless special directions to the contrary are given.

4. All photographs intended for this contest must be in the hands of the Exhibition Committee of the club on or before Nov. 1, 1909.

Exhibition Committee.—Phineas Hubbard, A. E. Fowler, Gurdon R. Fisher, Phil M. Riley, C. Peabody, F. R. Fraprie, S. H. Wing, James Dana.

Any further information can be obtained by addressing the secretary, John H. Thurston, 50 Bromfield St., Boston, Mass.

Darkness and Dawn

THE PHOTOGRAPHER (in despair, taking a colored group): "I can't possibly get sufficient light in my studio today to do justice to your family-group, Mr. Lamblack."

MR. LAMBLACK: "Can't? Why, your contemporaries always uses flashlights when we sits 'ot photos!"—*Puck*.

Pittsburgh Academy of Science and Art

THE Photographic Section of the Academy of Science and Art of Pittsburgh held its annual election on May 11, 1909, at which the following officers were chosen for the ensuing year: George B. Parker, president; R. D. Bruce, vice-president; J. M. Conner, secretary-treasurer; O. C. Reiter, lantern-slide director; H. F. Walbridge, print director.

During the past year several instructive and entertaining talks and demonstrations were given by members before the Section. On May 25, 1909, Mr. J. F. Haworth, M.E., delivered a very enjoyable lecture on "Aerial Photography with a Kite-Sustained Camera." Mr. Haworth illustrated his lecture with about fifty slides from negatives made by him from kites flown in the vicinity of Pittsburgh.

Mr. Max V. Straub gave a very profitable talk on "Autochromes" on June 8, 1909, and exhibited interesting examples of the work.

Arrangements are being made for several demonstrations and talks during the coming year. Among the subjects treated will be: a talk on "Lenses," by Dr. John A. Brashear, the lens-maker and astronomer; "Bromide Enlarging," by R. D. Bruce; "Photo-Micrography," by Mr. Frank L. Miller, one of the newer members of the Section. Mr. Miller has made a special study of this branch of photography. He will illustrate his subject with fifty slides.

Other special talks and demonstrations will be given during the coming year.

The Worcester Exhibition

THE Worcester Art Museum announces its Sixth Annual Exhibition of photographs, to be held from October 30 to November 29. Photographers, professional and amateur, are invited to participate, with the understanding that only work which gives evidence of artistic feeling will be accepted. All prints must be submitted to the jury, and not more than ten prints will be accepted from one exhibitor, whether or not more have been passed by the jury. No work entered at the first five photographic exhibitions, or which has been publicly exhibited in Worcester, will be eligible, as it is desired that this exhibition shall represent the work of the current year. Every photograph must be the individual work of the exhibitor. Enlargements will be accepted, provided the work is done by the maker of the negative. It is intended that all the work in making the finished prints shall be the individual work of the exhibitor. Entries must be mounted, and may be framed and glazed. The

title and name and address of the sender must be written plainly on the back of each print. Pictures will be returned as soon after the close of the exhibition as possible, and in the same manner as sent to it, unless there be instructions to the contrary. All entries must be delivered at the Worcester Art Museum on or before October 19. Entry-blanks, which may be procured from the Museum management, must be filled out and mailed on or before October 16. The jury of admission will consist of Austin S. Garver, Frederick S. Pratt, Dwight A. Davis, Dr. William C. Stevens, Jeanie Lea Southwick, Frank J. Darrah, Joseph H. Greenwood and Charles H. Lincoln.

Hearn Not a Contestant

In our account of the New England Convention in last month's issue we were in error in stating that the fine examples of portraiture shown by Charles Wesley Hearn, of Boston, were entered for competition. Instead, they were exhibited complimentary to the convention, Mr. Hearn having responded to the call of the association in his usual generous manner.

Women Photographers Organize

To the women of the profession:

The movement towards uniting the women photographers of the country, which began in a modest way at the Detroit Convention in 1908, has resulted this year, at the National Assembly at Rochester, in the formation of a Section for the purpose of advancing their art. "In union there is strength," and a good fellowship among co-workers is sure to prove of benefit to all.

The following officers were elected: president, Mary Carnell, 1314 Chestnut St., Philadelphia; vice-president, Belle Johnson, Monroe City, Mo.; secretary and treasurer, M. Estelle Jenkins, Chicago. Chairman Eastern Section, Gertrude Käsebier, 315 Fifth Ave., New York City; chairman Middle Section, Katherine Jamison, Centre and Highland Ave., Pittsburg, Penn.; chairman Western Section, Iola White, Kansas City, Mo.

Those who did not participate in the proceedings at the National Convention are herewith heartily invited to join the federation, which has already representatives in nearly every State in the Union. It is hoped that each woman photographer in America will promptly communicate with the chairman of her Section, or with the secretary, M. Estelle Jenkins, 115 N. Park Ave., Austin Station, Chicago, Ill., that she may be informed of the full purpose and plans of the association. Cordially yours,

MARY CARNELL, *President.*

August 23, 1909.

An Effective Pose

PHOTOGRAPHER (to nephew, who is being taken together with his rich uncle): "I would suggest that you place your right hand affectionately on the shoulder of your uncle."

UNCLE (to his spendthrift nephew): "Rather put your hand in my pocket; that would be a more natural pose."—*Fliegende Blaetter.*

LONDON LETTER

By E. O. HOPPÉ, F. R. P. S.

THE SALON SELECTING-COMMITTEE

To those who had to smart under last year's treatment of their pictures submitted to the "London Salon" it will be of considerable interest to know the names of the Selecting-Committee this year. There is, at the moment of writing, an openly-expressed feeling throughout this country that their names should be made public, and I believe that this is going to be done shortly before the exhibition will open. Five names out of the eight on the list, I am informed, are the same as last year; viz., Craig Annan, Benington, Arbuthnot, Davison and Craigie (the honorable secretary), though the last named had no hand last year in the actual selection. The three vacancies made by the defection of the American Links have been filled by Evans, Dudley Johnson and Mortimer. The name of Evans is a guaranty for a sound artistic judgment and good taste, together with an absence of faddism. The last two are newly made Links (1908) and have therefore not served on the Selecting-Committee before. Their addition is a distinct gain.

NEW R. P. S. REGULATIONS

The honorary distinction of Fellow of the Royal Photographic Society has not in the past been as widely available as many could have wished, so the Council of the Society has drawn up some new regulations which should have the effect of admitting to the honor of the Fellowship men of distinction who have in various ways, directly or indirectly, advanced the cause of photography. Any one applying must be a member of the Society. The new regulations read as follows: "Each applicant must submit a statement of his qualifications under one or more of the following heads: (a) original investigations, improvements or inventions adding to photographic knowledge either in theory or practice; (b) educational work, e. g., writing, teaching, etc.; (c) technical work, e. g., the application of photography in the various arts and sciences and in record work of all kinds, process work, reproductions of all kinds, etc.; (d) pictorial work; (e) professional portraiture; (f) other qualifications." The application should be supported by as much evidence as possible, such as copies of published papers, examples of work, etc., and by particulars of examinations passed or of any honors gained, etc. While it is desirable that in some ways the honorary title of F. R. P. S. should be made more difficult of attainment, it is to be hoped that the new regulations will enlarge the number of distinguished men who can apply for the distinction.

THE CANTERBURY CONVENTION

The Photographic Convention of the United Kingdom (to give it its full title) held its annual meetings at Canterbury during July. Mr.

Snowden Ward made an admirable chairman, and his address on "Art and Photography" proved both interesting and instructive, as also did Captain Wheeler's on "Telephotography." The outings were as delightful as the weather would allow, and certainly excellently chosen both for the pictorial and the topographical workers. The great desideratum was fine weather; and though it cannot be said that the weather was bad enough to mar the Convention, it did its best to do so. Scarborough is the center selected for next year, and it certainly promises to be an admirable place of meeting, as well as a good starting-place from which to reach a large and important area full of ecclesiastical, legendary, and historical interest.

PHOSPHATE PAPERS IN ENGLAND

Considering that the phosphate printing-process has been known for a very long time, it is somewhat surprising that examples of it have not been placed commercially upon the English market till quite recently. Messrs. Houghton, Ltd., set the ball rolling a few months ago, when they brought out their "Ensyna" paper, and for some months they had the field to themselves; but the Paget Prize Plate Co. has followed suit within the last few days, with its "phosphate" paper, and we hear that other brands are shortly to be expected on the market. Phosphate paper has one or two marked differences from its rivals. It is very soluble in hypo and, consequently, very rapidly fixed, one minute sufficing for complete fixation and five minutes for complete washing. Another advantage is the fine range of tones easily procurable. The color is practically determined by the length of the exposure without alteration of the developer; for while the shorter exposures give a fine black-and-white print, the longer ones give a rich brown and onwards to a fine purple, the latter tones being similar to those obtained in a toned P. O. P.; it is consequently admirably suited to press-work. But the chief attraction of the phosphate paper lies in the rapidity with which these tones can be obtained, an exposure of one to five seconds being all that is needed for full exposure in daylight, while a few seconds by incandescent gaslight will also suffice. There is no chemical reason why these papers should not be as permanent as P. O. P.; in fact, the chemist would probably back the phosphate against the P. O. P., so that with all these advantages one is safe in predicting a big run on them during the next few months, and their final acceptance as one of the regular printing-media of the photographic world.

THE NEW HOME OF THE R. P. S.

The Royal Photographic Society announces that the new house at 35 Russell Square is now ready for the reception of its members; and though some of the workrooms may still be somewhat unfinished, no great difficulties will be experienced. Locker-rooms are plentiful, and there are improved regulations for their management. It is gratifying that the work has been

done so expeditiously and the life of the society so little interrupted by so great a change, and that the winter session will begin without let or hindrance. Great praise is due to the official staff for their excellent arrangements and wonderful expedition.

FRAUDULENT PHOTOGRAPHIC PRINTS

I am not aware whether the tricks of the (lower-class) trade are the same in America as they are here, but we have just had a case, decided in a police-court, of considerable interest to the public who buy photographic prints. It seems that a certain photographer, guided by a firm's price-list, ordered some "carbon" prints. On delivery he was doubtful about them and applied a chemical test, sending some to friends for them to do the same. The prints failed under the test and turned out to be only P. O. Ps. The photographer apologized for the "mistake," paid the fine and all expenses. No doubt the public in this country is extensively victimized in this way, and receives P. O. P. prints and bromides as carbons and platinum; not only getting a less expensive but a less lasting print than has been paid for. The moral seems to be: if you are a photographer, test your prints yourself when the professional sends them home, if he be a doubtful personage; if you are not, get a photographic expert to do the work for you and, in the case of fraud, insist on your apology and your compensation. You will get them both without going to law.

RECORD AND SURVEY WORK

This branch of photography is becoming more popular in this country, and certain of the societies are making it an encouraged and recognized branch of their members' work, a class being provided for it at the annual exhibition. Only recently one of the great London public libraries enlisted the assistance of the local photographic society and by its aid opened a free photographic exhibition for the district, which was visited by thousands of people; and the Record and Survey Section was by no means the least popular of the exhibits. There are several societies in the metropolis devoted entirely to the studying and photographing of the memorials that London still possesses of the times gone by, while Sir Benj. Stone worthily acts as president to the National Photographic Record Association, which has a magnificent collection of records photographic. The L. C. C. has its Record Committee, and much photographic and scale drawing-work carefully stored for public reference.

In the Studio

PHOTOGRAPHER (to a very pretty customer):
"Now let us have a very pleasant expression. That's it — one, two, three, done! You may now resume your ordinary expression!"

✎

It matters not whether others believe in us; but whether or not we believe in ourselves is of the utmost importance.

Steamed Bromides

THOSE who use bromide paper will, doubtless, at some time or other have felt disappointment at the difference in appearance of their prints in the wash-water and after drying. The finished picture often has a dead, lusterless appearance far different from the deep, luscious, well-gradated shadows and delicate half-tones. J. M. Sellors, writing in "The American Annual of Photography," suggests as a remedy that the prints be steamed. Says Mr. Sellors, "This gives a depth and transparency which approximate very closely to that of the wet print, and, as far as I have experienced, can be obtained in no other way. No special apparatus is required, the ordinary domestic kettle being all that is necessary. When the water is boiling hard, and a strong jet of steam is issuing from the spout, the surface of the print is brought to within about an inch of the spout and moved about fairly quickly until the steam has acted over the entire surface.

"On examining the print it will be found to have a semi-glossy appearance. As a rule the one steaming will be sufficient; but if in a minute or two the effect partially disappears, a second application of steam should be given. The steam should on no account be allowed to play on any one point for more than a second or so, as there is a danger of entirely melting the gelatine film.

"Unless one has the cuticle of a rhinoceros and the feelings of a bronze statue it is not advisable to hold the print up to the steam with the hand, but to pin it by the four corners to a board and hold that up, as the impinging of a jet of live steam on the fingers for the fraction of a second will cause a sensation the reverse of pleasant.

"Considerable care should be taken not to over-steam prints that have been toned, as repeated applications of steam will affect the color."

Soft Enlargements from Harsh Negatives

IN *The Amateur Photographer and Photographic News* H. M. Kellam emphasizes the fact, already known by many, that bolting-silk may be used to advantage in toning down chalky high-lights and introducing additional half-tones when making bromide enlargements from harsh negatives. The exposure must be increased about one third when the silk is used. If the mesh is not objectionable in the print the silk may be allowed to remain stationary in front of the paper during the whole time of exposure, or half of the time; but the utmost softening-effect is secured by moving the silk-frame slightly during the whole exposure, which permits no trace of the pattern of the silk to print.

Pancro C Plates with the Autochrome Screen

MALCOLM D. MILLER, M.D., reports that during the summer he has made a series of careful comparative tests to determine the speed of the Pancro C plate. He finds that, in order to obtain fully timed negatives, one must give three times the exposure required for the same subject under the same conditions as with standard fast plates such as Lumière Blue Label or Cramer Crown; for example, in June, at 12 M., bright sun, on an average landscape, $\frac{1}{16}$ second exposure at $f/11$. The autochrome screen used with the Pancro C plates requires a factor of 8. A smaller factor can hardly be used, and a larger one results in no distinct benefit. A good basis for calculation is a standard minimum exposure of one second at $f/16$. The developers used in these tests were dianol, glycin, metol and edinol.

PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

<i>Society or Title</i>	<i>Date</i>	<i>Entries Close</i>	<i>Particulars of</i>
Boston Camera Club Boston, Mass.		Nov. 1	John Thurston, Sec'y, 50 Bromfield St., Boston, Mass.
Nebraska Photographers' Association Lincoln, Neb.	Oct. 12 to Oct. 15		F. E. Taylor, Sec'y, Broken Bow, Neb.
Photographers' Association of Kansas Kansas City, Kan.	Sept. 28 to Sept. 30		Max Wolf, Sec'y, Manhattan, Kan.
Photographers' Association of Texas Dallas, Tex.	Oct. 19 to Oct. 21		F. M. Boyd, Sec'y, Gaines- ville, Tex.
Photographic Salon London, England	Sept. 10 to Oct. 23	Aug. 26	
Royal Photographic Society London, England	Sept. 23 to Oct. 30		
Sixth American Photographic Salon Toledo, O.		Oct. 1	C. C. Taylor, Sec'y, 3236 Cambridge Ave., Toledo, O.
Worcester Art Museum Worcester, Mass.	Oct. 30 to Nov. 29	Oct. 19	Philip J. Grentner, Director, Worcester, Mass.

WITH THE TRADE

True Panchromatic Plates

THE new Spectrum and Spectrum Process plates recently placed upon the market by the G. Cramer Dry-Plate Co. mark a distinct progress in orthochromatics. Without losing the advantages accruing to ordinary Isochromatic plates, the new Spectrum plates possess a high sensitiveness to the spectral red, which enables them to record the B line (6,870) with ease, while with slightly increased exposure they extend beyond 7,000. This result has hitherto been unattainable except with plates specially bathed. The Spectrum plate is very rapid, being about the same speed as Cramer's Trichromatic, and is well adapted for use by those working the indirect method in tricolor reproduction.

The Spectrum Process is (as its name implies) particularly designed for direct tricolor work; i.e., where the primary color-sensation negatives are obtained directly through the ruled screen. This latter plate is the result of extended experimental work, and combines fineness of grain with extreme density. The film is thin, and the plate works clean, so that the result is a firm dot with close approach to wet-plate quality, the transparent spaces between the dots representing almost clear glass. When used with the red filter (blue plate) the exposure-time is very considerably reduced. It need not be more than pointed out that this increased extent of sensitiveness means better rendition of the dark reds, less time in the re-etching and consequently reduced cost of production.

For the photo-engraver who is not engaged in tricolor work, but who has the innumerable troubles attendant upon the reproduction in black and white of originals showing color, these plates will prove a boon; used in conjunction with Cramer's Contrast-filters, described in the September PHOTO-ERA, they enable the operator to reproduce any color with maximum or minimum contrast, as desired.

Anso Goods Popular

JUST as we go to press comes the announcement that the St. Louis branch of the Anso Company at 407 North Broadway has been considerably enlarged in order to carry a larger stock, the better to care for the growing demand for this line of goods. Future purchasers in this section will receive even better service than hitherto.

The same conditions exist at the Minneapolis branch, which has just been moved to larger quarters at 14 Fifth St., South.



However good you may be, your neighbor is just as good and probably better.

Print Portfolios

THE attention of our readers is invited to the attractive line of portfolios in leather, cloth and fancy papers manufactured by E. B. Michelman, 106 Sixth Ave., New York City. The professional will find them an inexpensive means of delivering his goods in a distinctive way; the amateur, an attractive holder for a collection of prints to be presented to a friend. Mr. Michelman's line also includes large portfolios and albums for studio and home collections. Prices furnished on request.

Quality Water-Colors

No one can afford to waste time experimenting with water-colors which are but partly transparent, which deposit grit on the print, which harden, and will not dissolve or will not blend. Peerless Japanese Transparent Water-Colors, manufactured by the Japanese Water-Color Co., of New York, may be depended upon to be free from all these defects, and the convenience of the leaflet form in which they are prepared is worth knowing about. See the special trial offer in the advertising-pages. The manufacturers conduct a picture-coloring department for the trade, and those amateurs who do not care to do their own work.

Kodak Contest

THIS is the last call for the \$2,000 Kodak Advertising Contest, closing October 1. If you are not familiar with the particulars, consult the nearest Kodak dealer and send your prints at once. Substantial cash prizes are waiting for the right sort of photographs — pictures which will induce sales of cameras and accessories pertaining to the Kodak idea.

A Well-earned Tribute

THERE is scarcely a camerist who is not grateful to the originator of the most perfect of compact photographic chemicals on the market — the Burroughs Wellcome Tabloids. They are recognized the world over as standard, not only as regards purity and immediate and unflinching efficiency, but compactness and keeping-properties. These greatly-desired qualities never fluctuate, but are constant, one batch of Tabloids being exactly as good as another. Hence Tabloids are enjoying a world-wide popularity, and are rapidly displacing other, similar and familiar old-time preparations, whether in liquid or powder form. Every reader of PHOTO-ERA should secure a copy of "Photographic Facts and Fallacies," mailed free on request. It is intensely practical, being the result of long experience and scientific research in the interests of photography crystallized.

Why Not Expose Correctly ?

As the autumn months march on apace the waning light makes the problem of correct exposure more difficult. An expenditure of fifty cents for Steadman's Aaba Exposure-Scale will stop the waste of plates, however. It is a compact little celluloid tablet for the pocket, ensuring perfect negatives in the hands of any beginner, whatever the subject, weather, plate or film used may be. Since correct exposure is the whole backbone of photography, this scale is worth many times its cost to any camerist. Note Mr. Steadman's Home-Portrait Specialties in the advertising pages.

Binghamton Has a New Industry

GROUND was broken recently at Binghamton, N. Y., for a new factory for the manufacture of photographic specialties by the Bingham Company. Mr. Frank R. Wyckoff, who is at the head of the organization, is a member of the Publicity Committee of the Chamber of Commerce, and one of the most persistent promoters of Binghamton in the city, having been the leading spirit in several other successful enterprises. The new building, though it will be small at first, is to be so constructed that additions can be made easily, and it is expected that it will be necessary to enlarge the plant soon.

American Exposition at Berlin

IN our last issue we called attention to the advantages to manufacturers of photographic specialties in participating in the American Exposition at Berlin, Germany, during April, May and June, 1910. Photographic interest is even greater in Europe than in America, and the results of American ingenuity are sure to receive a warm welcome there.

As stated last month, the Exposition aims to bring together in a magnificent Exposition Palace — much larger than Madison Square Garden, New York — in the commercial heart of Europe, a representative collection of the best that American ingenuity, skill and experience can produce, thereby fostering and strengthening our trade relations with Germany and increasing American exports generally. It will be a unique enterprise, also, in that it will be an Exposition without extras, all incidentals being included in the space-rental.

Since last month there have been several important developments. Prince Henry of Prussia has accepted the Honorary Presidency of the Exposition, and heads a German committee, consisting throughout of men of the very highest standing in the Empire, who will cooperate with the regular German Advisory Committee in making this Exposition successful. J. Pierpont Morgan and Thomas A. Edison have joined the Honorary American Committee. The Hamburg-American and the North-German Lloyd Lines have increased their original freight reduction from 20 to 30%. Arrangements have been made whereby exhibitors who do not intend to send a

man of their own to Berlin can have their exhibits unpacked, installed and demonstrated, for a moderate charge, by a special Sales Office and Bureau of Information established in the Exposition Palace; so that it will be necessary for them only to ship the goods to New York to be taken entire care of from there on by the Exposition Management, Max Vieweger, American Manager, Hudson Terminal Buildings, New York City.

Stereoscopic Work Simplified

A VERY clever device, recently perfected, is clamped on the lens-board of the ordinary camera, and enables the user to make excellent stereoscopic views without having to transpose the pictures, as is necessary with the regulation stereoscopic camera. This attachment, being very low in price, should do much toward reviving interest in the stereoscope, as the comparatively high cost of a special camera for making these views, together with the additional work necessary, has prevented many from indulging in this delightful pastime. The Ingento Stereoscopic Attachment brings them within reach of every amateur. Burke & James, Chicago, will send a folder on application, with a reproduced specimen view.

BOOK-REVIEWS

Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.

THE PHOTOGRAPHIC ANNUAL 1909. Incorporating "Figures, Facts and Formulae of Photography." Fifth edition extended, largely rewritten and revised to June, 1909. Edited by H. Snowden Ward. 287 pages. Paper covers, 50 cents, postage 8 cents; cloth, \$1.00, postage 10 cents. Tennant & Ward, New York.

No articles or miscellaneous illustrations are offered in this handy volume. Its contents consist of figures, facts, formulae, tables and working-methods of the utmost practical value, covering the whole field of photography. In this respect it occupies a unique place among the photographic year-books. As the information is classified and arranged in sections under different branches of work, so the photographer can find at once any item desired, a complete and convenient reference-book is thus afforded. As an example, the section dealing with developers gives over one hundred selected formulae for plates, films and papers, including those endorsed for special brands of goods and those used by prominent workers. There has been need of such a volume for a long time, and the hearty welcome given to the first edition published last year will unquestionably be extended to the second volume. About two-thirds of the text in the present issue is new or revised, and the cloth edition is interleaved with writing-paper for notes.

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Official Organ of the American Federation of Photographic Societies

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WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return postage is enclosed.

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LA LAVEUSE
MALCOLM ARBUTHNOT
THE LONDON SALON



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The London Salon

E. O. HOPPÉ, F. R. P. S.

THE trouble which arose over the Salon exhibition of last year owing to the action of some of the American members of the Linked Ring has apparently not been quite forgotten and, no doubt, affected the size of this year's exhibition, which, in my opinion, is a very good thing indeed! On entering the room we are at once struck with its harmonious appearance. There is only a single line of pictures around the walls, with occasionally one above just to break it, while one-fourth of the whole space is taken up with the D. O. Hill Collection, about which I shall have more to say presently.

It may be stated at once that the general character of the work shown is far superior to that of last year. There is an absence of the "Get attention at all hazards and by all means" attitude which was so noticeable in 1908, and there are fewer freak-photographs and a return to quieter methods of presentment and a more reasonable attitude.

The new members on the Selecting Committee to replace the American Links who resigned were: Frederick H. Evans, Dudley Johnston and F. J. Mortimer.

In passing around the exhibition we come first to pictures by the Warburgs. "Portrait" by Miss Agnes Warburg is not particularly striking. It has a certain decorative charm, but is rather raw in the edges, while "The Harbour" by J. C. Warburg is decidedly weak and empty. Furley Lewis sends a portrait of Pirie MacDonald in which the lighting and modeling of the head are admirable.

It is rather a matter of wonder why — except because it has taken other work of his before — the committee accepted the quite ordinary interior of F. H. Cliffe. Of course the three Käsebier portraits, lent by F. H. Evans, need no praise. It is sufficient to say that they are characteristically charming.

J. H. Anderson is represented by very strong work of the same high standard that we are accustomed to see from him. His "Off Yarmouth," though there is a splendid quality and movement in the water, has dark boats that are spotty in appearance and out of tone. C. H. Emmanuel appears in two different styles in this exhibition — his old style in "The Fishmonger's Shop," full of delicate

detail and pictorial charm, and in a new style, a diffused enlargement, "A Paris Courtyard," in which he appears less happy. Eustace Calland is not adding to his reputation this year, for his "At the Seaside" is interesting neither as a decoration nor as a record. Cochrane is sacrificing truth to decoration, which he has a perfect right to do, and his "Tournament" is very fine as a scheme. His "Viaduct" is not well composed, the bridge and the cloud being both central and one above the other. Cochrane is getting too fond of darkest gloom, and in this he outpeppercorns Peppercorn. F. J. Mortimer has mastered the oil — I beg his pardon! — the "Brom-Oil"-process completely, and has made it his medium for the expression of his ideas. In his hands it assumes qualities of depth and strength that are not frequently found. The main secret of the fine impression his pictures create is, no doubt, and in a great measure, due to the fact that he makes his exposure already with an eye to the special technique requisite. What he shows this year is among the best from this indefatigable worker. "The Harvest Moon" and "The Mill on the Dyke" are splendid examples. The work of F. H. Evans is full of imagination and dignity and of a high mental tone. The most exquisite and delicate of his efforts is "The Dirge" — a delightful bit of sunny rendering and interpreting the true spirit of the woodlands.

Walter Benington has done a magnificent thing this year. His "Cab-Rank" is certainly an added laurel to the honors to which his work in the past has entitled him; it is bold, strong and convincing.

Craig Annan is, undoubtedly, stronger than last year. "Bolney Backwater" and "The White House" display good subject-material, while in the latter there is an added decorative quality. His portrait of Eustace Calland is certainly fine, though the reflected high-light is somewhat obtrusive and unpleasantly harsh.

I am exceedingly pleased to find work of the Buffalo Circle at the Salon, and both Porterfield and Thibaudeau show work of a pleasing and convincing character. Alexander Keighley has three fine pictures, and, although his old fault of too fluffy detail is in evidence, he shows a growing appreciation of the decorative in landscape — taking a typical Italian scene as his material. "The City on the Hill" is his strongest picture.

Reginald Craigie, the Honorable Exhibition Secretary, is very sparing in his contributions, as a rule, and this year is no exception. He sends only one picture, "A Young Brunette," and this is a good thing.

It is when we come to look at Malcolm Arbuthnot's work as a whole, and find the versatility of his great talent, that we can form a true idea of his place amongst his cotemporaries. The air of apparent ease with which his various forms of work seem carried out indicates an unusually interesting personality. Since last year Arbuthnot's art has grown higher and purer, without losing any of its originality. Of his ten contributions "La Laveuse" is the most striking in this respect.

This is Dudley Johnston's first exhibit as a "Link." His works strike a more somber note, for they are more mysterious and more romantic than before. His "The Valley of the Dragon" is not only the portrayal of scenery or mere actuality,



THE HARVEST MOON
F. J. MORTIMER, F. R. P. S.
BOLNEY BACKWATER
J. CRAIG ANNAN
THE LONDON SALON



but the means to give utterance to poetic sentiment and aspiration. Arthur Marshall is represented by a color-subject which does not seem very convincing. "Away to the West" — a fine picture of the Dublin Custom-House — is in the style of his "Venetian Pearl," but not quite so successful. It seems to require emphasis somewhere, and falls away in quality at the edges. Will Cadby has three subjects of rare quality. His "Child Study" is one of the best things of his we remember to have seen, and an excellent study in tones, although in a very high key. J. H. Whithead is represented by only one picture, "Sic Transit Gloria Mundi," and I am not at all sure that it is up to the standard of the Salon. I do not begrudge it its place, as it is good, sound, straightforward photography; but it looks as if it had strayed, as they say in the Commons, "from another place."

So much for the work of to-day, but it is to the work of yesterday that the chief interest of the 1909 Salon belongs. The visitor will be arrested and held by the great interest of the D. O. Hill pictures, which cover one of the end walls. Here we have work which, as the forewords to the collection say, "For pictorial and individual expression" has yet to be equaled. It will be remembered that D. O. Hill was an artist, a member of the Scottish Royal Academy, and much thought of for his pictures of Scottish life and character. He began in 1844 to use photography to obtain a rapid series of portraits to help him in the production of an historical painting in which some of the most interesting men of the day were included, so that these portraits have the added interest of representing some of the most noted personalities of the time. There are twenty-eight examples of his work hung at the Salon; of these about one half are photogravure reproductions of the originals, whereas the remainder, with one exception, are actual original prints, most of which show little evidence of age or of the influence of time upon them. The exception is a carbon print representing John Gibson, R.A., which, viewed from a distance, shows well the difference in quality between the carbon and the home-sensitized prints of Hill himself. Although many of these pictures are well known even to the general public by published reproductions, attention may be invited to the decorative treatment of the dress of the model in "Miss Rigby," which is equal to anything that those who shout the loudest about decorative treatment are able to produce. His power of combining figures successfully into a group, which most workers of to-day find so amazingly difficult, is shown in his "Group," in which the concentration of interest is wonderful. Perhaps the best known of all Hill's pictures, and the oftenest reproduced, is "Lady Ruthven." Here the artist, in 1844, has the audacity to show not the face, but the back of his model, relying on the beauty of the lace shawl, draped upon the shoulders of his sitter, for his principal attraction. We might call attention to the skill with which the quite ordinary old lady who sat for "Portrait" has been used to give us beauty of pose and fineness of quality, which in these degenerate days we cannot surpass or even equal. "Newhaven" is a little puzzling. It must be remembered that Hill took all his subjects on paper negatives, and that the required exposure, even with the aid of

sunshine, ran into minutes. Thus we are forced to the conclusion that this is not a successful snap-shot, obtained by waiting patiently until the figures so placed themselves as to fall into the scheme of arrangement which the artist desired, but rather the result of skilful placing of figures for a definite purpose. Those who have attempted such a plan know its almost insuperable difficulties and the strained poses of the placed models, and will be filled with wonder at this achievement. Hill's claims to attention are well summed up in the Salon catalog: "These results have never been excelled in masterly conception and vigorous treatment. Thus at the very threshold of the new art of photography there was a worker who realized its possibilities — restricted though they were technically — for pictorial and individual expression and for the production of results that have yet to be equaled."

It can hardly be maintained that there is anything of exceptionally outstanding character at this year's Salon; probably Arbuthnot, Benington and Mortimer will be remembered as the strongest workers in landscape. The rest of the work of the 1909 Salon is certainly more English and less sensational than last year. It marks steady, if not exciting, progress and, above all, it is our own. We are indebted to no other nation for such success as the 1909 Salon has achieved.

It would be a great pity if the Salon exhibition, which has been an annual event of great importance in the photographic world for seventeen years and the exponent of the gradual spread of forward photographic work not only for English but for a certain proportion of foreign and American workers as well, should cease to be.

[With becoming modesty Mr. Hoppé has omitted to refer to his own work. Of it *The Amateur Photographer* states, "This portrait-maker comes into his own at this year's Salon, and his nine portrait-studies of notable people are not only the best things he has done, but the best of their kind in the exhibition. He is to be congratulated upon his progress."— EDITOR.]

Reduction and Intensification of X-Ray Negatives

J. I. PIGG, F.R.P.S., F.R.M.S.

SOME radiographers object to any form of after-treatment of the negative and consider that in X-Ray work any manipulation subsequent to the fixing-bath is improper. In X-Ray, as in all scientific photography, the negative should be kept free from any trace of artificial detail, but the aim of the operator when reducing or intensifying is to bring out more clearly obscure details that are already in the negative.

Radiographers, who generally find it difficult and often impossible to obtain a fresh negative, are naturally disinclined to risk spoiling their plates in trying to improve them.

Some experience in the action of reducing and intensifying-solutions is required before they can be used to advantage, and many experiments should be

carried out on waste negatives before any attempt is made to improve a plate that cannot be replaced if it is inadvertently spoiled. Excessive density often occurs in an X-Ray negative, and judicious reduction may greatly improve its printing-quality, but if the detail in the negative can be secured on bromide or gaslight paper, without resorting to reduction, the policy of letting well-enough alone is often the best.

In radiography sufficient exposure cannot always be given, because of involuntary movements of the subject, and a weak negative is the result. This kind of negative is always improved by intensification, and a plate that seems painfully lacking in vigor on leaving the hypo-bath can be made to give a quite passable print by subsequent treatment. Intensification of weak radiographs is even more beneficial than in ordinary photography. In cases where the negative is dense but lacking in contrast, owing to the hardness of the tube, intensification is not always advisable, as the plate may easily become clogged. The plate can, of course, be reduced before intensification, but in practice this will frequently be found to weaken rather than strengthen detail. Dense flat negatives can often be greatly improved, *but this class of plate must be left until the operator has had considerable experience on less difficult subjects.*

In radiographs in which both thick and thin portions of the body are required on the same plate it is obvious that some parts of the negative must be over-exposed, and frequently the densest parts of the negative are unprintable. In such cases local reduction will effect a wonderful improvement if it is carefully carried out.

A good-sized piece of absorbent cotton should be dipped in the reducer and passed quickly over the densest parts. The absorbent cotton must be kept constantly moving while on the plate, or the reduction will be uneven. The reducer should be frequently rinsed off under the tap and the negative be inspected to watch progress.

The best all-around reducer is potassium ferricyanide (red prussiate) and hypo. The easiest method of working this is to use a saturated solution of potassium ferricyanide. When a plate is ready for reduction pour two to three ounces of fresh hypo-solution into a dish with sufficient water easily to cover the plate, then add a few drops of the potassium ferricyanide solution.

If too much potassium ferricyanide is used the reducer will act too quickly and reduce unevenly. If it is too weak the operations will be unnecessarily prolonged. The combined hypo and potassium ferricyanide reducer will not keep; in a few minutes the solution becomes colorless and eventually turns green. It will act only when sufficient hypo is present and the solution is of a yellow color. When the action of the reducer ceases fresh hypo and a few more drops of potassium ferricyanide must be added. If the quantity of hypo is insufficient the image is bleached instead of being reduced. Practice is required in judging the amount of potassium ferricyanide needed to reduce negatives within a reasonable time, but the operator very soon learns easily to gauge the strength of his reducer entirely by its color.



THE CAB-RANK
WALTER BENINGTON
THE LONDON SALON



A plate that is too dense should be reduced, if possible, immediately after removal from the fixing-bath, as the hypo in the film assists the reduction. The dish containing the reducer should be tilted so that the solution runs to one end; the plate is placed in the dish and the reducer allowed to flow back gently and evenly over the plate. The dish is slowly rocked while the plate remains in it. If rocked too quickly, the edges of the plate are reduced before the middle, and if the dish is not rocked at all wavy markings appear on the film.

When much reduction is necessary the reducing-solution is apt to affect the plate unevenly, this being particularly noticeable at the edges, which reduce more quickly than the center of the plate. In reducing X-Ray negatives great care must be taken to stop the action of the reducer before any unevenness is visible, as otherwise the negative may become valueless for diagnosing-purposes. In all cases in which the operator has any doubt as to the advisability of reducing the plate a print should be taken first in case the image should be spoiled.

When a negative requires intensification the image is first bleached with mercury bichloride and then blackened with ammonia. One ounce of the bichloride is dissolved in twenty ounces of hot water in order to make a saturated solution. When cold it is ready for use. It is not necessary to filter, as any sediment will sink to the bottom and need not be disturbed when the solution is used.

The negative to be intensified should, after leaving the hypo, have at least ten minutes' washing under the tap. If it has been dried it should be soaked in water for a few seconds before intensification. The plate should be held in the hand, not placed in a dish, while the mercury is poured over the film. The solution should flow evenly over the surface of the negative, just enough of it being poured on to cover the plate. In about four minutes the image will be bleached; the solution is kept continually moving over the film till bleaching is complete, and is then poured away, *not* put back into the bottle. The negative is rinsed under the tap for a minute or two, and then blackened with ammonia. Two drams of liquid ammonia .880 are placed in a clean measure-glass and one ounce of water added; this is poured over the bleached image, which almost immediately turns black. If the operations have been properly carried out the negative will be found to have gained considerably in vigor, and the image shows no stains nor markings of any kind. The mercury bottle should be kept at least half full of water, so that the sediment may remain at the bottom.

When several plates are being intensified at the same time ammonia fumes must not reach the mercury during intensification, or an iridescent stain will appear on the plate. The blackening of the image should be carried out at some distance from the bleaching-operations. One ounce of mercury will intensify at least thirty 10 x 12 plates, and with fresh solution used for each negative no staining will occur.

If carelessly used the potassium ferricyanide reducer sometimes produces yellow stains, which can be removed by gently rubbing the stained film with a piece of absorbent cotton that has been dipped in a strong solution of potassium cyanide.— *Photographic Scraps*.



HANS VON BARTELS

BY E. O. HOPPÉ, F. R. P. S.

THE LONDON SALON

Enlarging by Incandescent Electric Light

A. E. SWOYER

MANY very excellent articles on enlarging-methods in general, and on daylight enlarging with the ordinary camera in particular, have been written; but there are two objections to daylight enlarging that volumes of tables compiled by the most eminent authorities cannot overcome. The first of these is the varying actinic value of sunlight during the different seasons of the year and during various hours of the day, which introduces a changing exposure-factor that even troublesome test-exposures cannot eliminate; the second is the fact that many enthusiastic amateurs have but few of the daylight hours to devote to their hobby and prefer to spend such daytime as they may in the making of exposures rather than in finishing enlargements.

Until a few years ago, however, enlarging at night meant the purchase of an enlarging-lantern, with the attendant expense of condensers, projection lens



CHILD STUDY
WILL CADBY
THE LONDON SALON

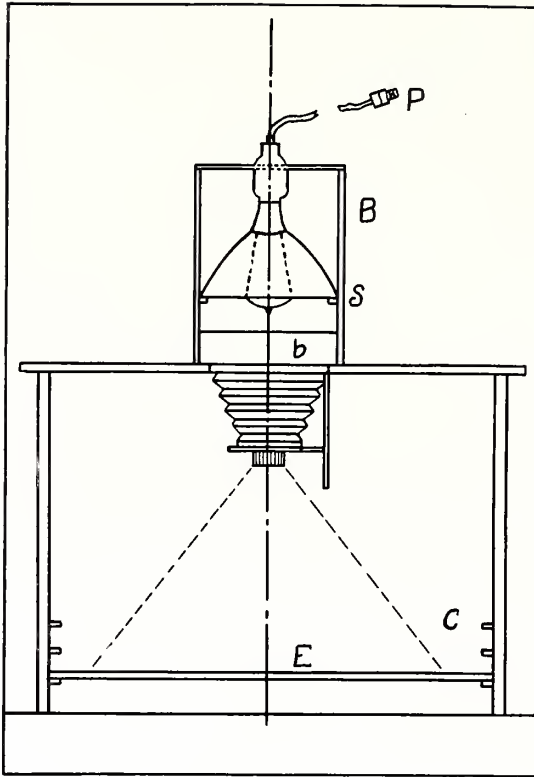


and so on *ad infinitum*. The advent of the tungsten lamp altered this condition by placing a powerful actinic light economically at the disposal of any amateur to whom electric current is available. The only disadvantage in the use of the tungsten lamp for enlarging-purposes is that it must be burned in a vertical position in order to prevent warping of the metallic filament; in other respects it is similar in appearance and in manipulation to the ordinary incandescent bulb with which we are all familiar — burning, however, with twice the light for a given current consumption. It is an easy matter to construct a stand suitable for enlarging with the lamp in a vertical position; a convenient arrangement is shown in the illustration.

The stand proper consists of a table with a hole cut in the top of sufficient size to allow the passage of the camera-bellows, the camera resting by its edges on the rim of the hole, or it may be supported by two strips of wood placed across the opening. The height of the table depends upon the focal length of the lens to be used and on the degree of enlargement required — a suitable height may be determined by reference to the accompanying table. Care is needed in placing the pegs C, which serve as a support for the board E, to which the sensitive paper is to be attached, in order that the surface of this paper may be parallel to the negative; it is an advantage to have these pegs so spaced that when the easel rests on one set an enlargement of a given size is secured; when on the next set, another known size, and so on. For example: suppose that with a six-inch lens a four-times enlargement is fixed as the capacity of the stand; then if the camera used in enlarging is four inches thick the height of the stand is $(7\frac{1}{2}''+30'')-4''=33\frac{1}{2}$ inches. The first (lowest) set of pegs would be for a three-times enlargement, and, assuming the board E to be one-half inch thick, would be placed $(8''+24'')-\frac{1}{2}''-4''=27\frac{1}{2}$ inches from the surface of the table. The shorter distances noted under each degree of enlargement in the table of equivalent foci show the distance from lens to negative necessary to secure that degree of enlargement with the lens of corresponding focal length; focusing may be simplified by setting the camera-bellows to the distance shown in the table before placing it upon the stand. In this connection it is important to note that with a single lens this distance is measured from the face of the lens; with a symmetrical doublet, from the iris diaphragm; while with an unsymmetrical lens, such as are most of the anastigmats working at $f/6.3^*$ or under, no definite rule can be given.

The electrical part of the outfit is simple. The tungsten lamp comes in various sizes and voltages; it is important to secure a bulb designed for the voltage with which it is to be used, and in all cases the bowl, frosted type should be secured. The size designated as 40 watt is recommended for enlarging from 4 x 5 or smaller negatives; the 60 watt is suitable for 5 x 7. To increase the efficiency of the light, and also to secure equality of illumination, the Holophane bowl-shaped shade, known as B2, must be used. A keyless socket attachment-

* Note: The Beck "Isostigmatar," $f/5.8$, and the Beck-Steinheil "Unofocal," $f/4.5$, are exceptions.



plug and sufficient No. 16 lamp-cord to reach to the nearest electric bracket are the remaining essentials.

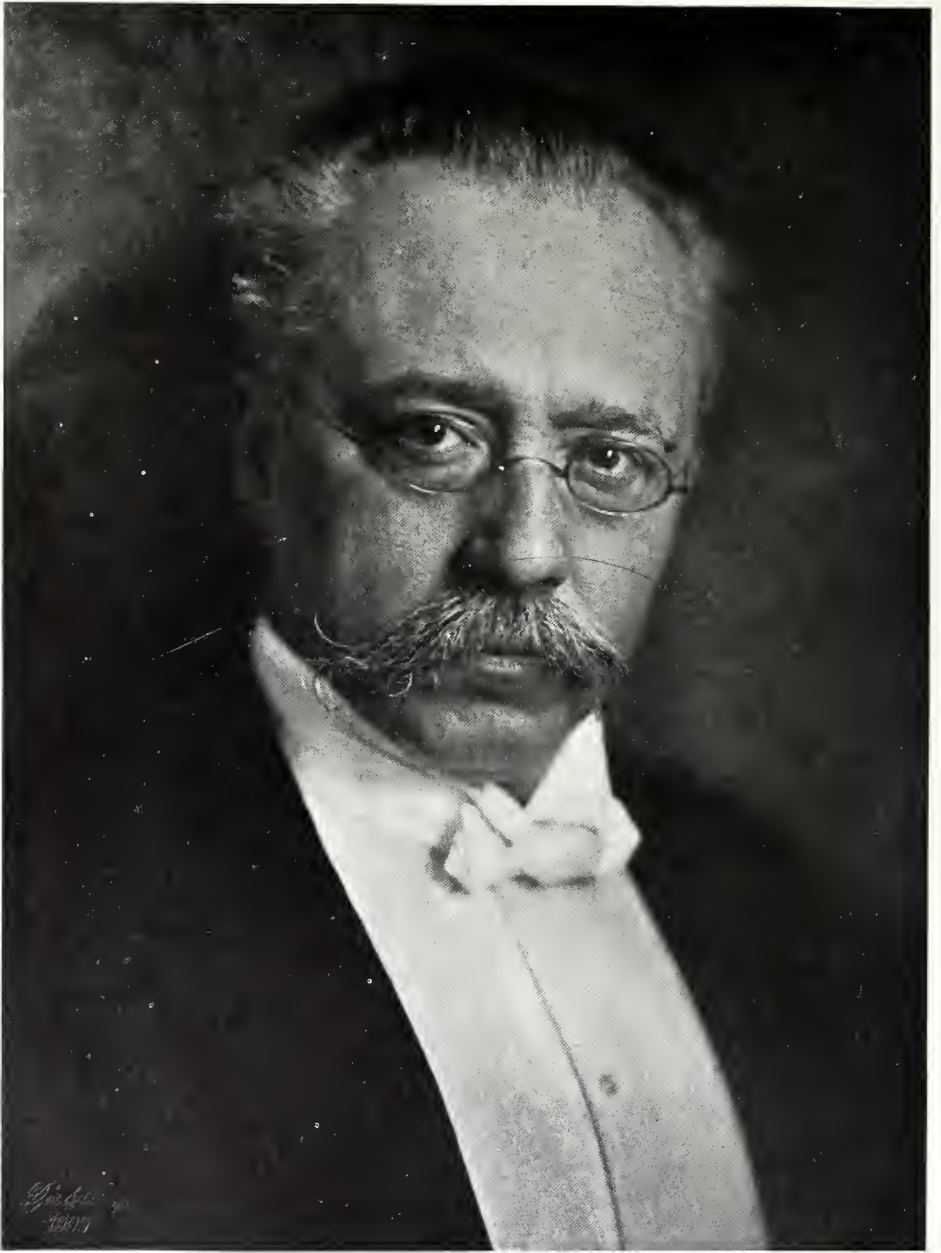
There are only two details left to consider — the construction of the box to hold the lamp and an arrangement to keep the negative in position. The box should be made of light wood and be about six inches longer than the lamp; it should be just large enough to slip easily over the camera as shown, and should have strips *S* to serve as supports for the lamp fastened on the inside six inches from the bottom. It should have a cover with a hole of sufficient size bored in it to allow of the passage of the socket. To hold the negative, two pieces of clear glass (one piece will be sufficient if plate-negatives are used) the same size as the camera-back must be obtained; the negative is bound between these pieces with rubber bands, and the whole is placed on the camera after the back has been removed, and held in position with bands passing around the camera. Should a negative smaller than the back-opening of the camera be used, it will be necessary to make a mask from opaque paper of sufficient size to prevent any light other than that passing through the negative to reach the sensitive paper; while if great diffusion is desired, the support to which the negative is attached may be ground-glass.

TABLE OF EQUIVALENT FOCI						
SIZE OF PLATE	FOCAL LENGTH OF LENS	SIZES OF ENLARGEMENT				
		2	3	4	5	6
3½ x 4¼	4	6 12	5½ 16	5 20	4½ 24	4⅔ 28
	4½	6¾ 13½	6 18	5⅝ 22½	5⅔ 27	5¼ 31½
4 x 5	6	9 18	8 24	7½ 30		
	6½	9¾ 19½	8⅔ 26	8⅛ 32½		
5 x 7	8	12 24	10⅔ 32	10 40		
	9	13½ 27	12 36	11¼ 45		

NOTE. The smaller numbers under each degree of enlargement show the distance in inches from lens to plate with corresponding lens; the greater numbers show the distance from lens to easel.

Supposing the apparatus complete and the size of the enlargement determined, the actual work of enlarging is easy. Remove the back of the camera and clamp on the negative-holder; draw the bellows out the distance given in the table for the size of enlargement desired and place the camera on the stand as shown. Put the light-box B in position, with the edges of the shade resting on the strips S, and with the cover on. Cover the board E with a sheet of unsensitized paper and slip it onto the proper pegs. Attach the plug P to the source of current, turn the switch and open the lens — any adjustment of focus may now be accomplished. Slip a dark yellow or ruby ray-filter over the lens, and affix the bromide paper to E by means of thumb-tacks. The exposure may now be made by removing the filter, or by setting the shutter at "time" and exposing by the use of the bulb. Although exposure varies with the degree of enlargement and the density of the negative, when this is once determined it becomes an easy matter to duplicate the enlargement at any time.

My own experience shows that a two-times enlargement on Eastman Standard Bromide, with an average negative and six-inch lens working at f/6.8, requires about one minute. As in printing gaslight papers, however, exposure is largely a matter of judgment, and experience is the best teacher.



MAX FIEDLER
CONDUCTOR, BOSTON SYMPHONY ORCHESTRA
BY R. DÜHRKOOP



Modifying Sulphur-Toned Bromide Prints

W. J. ROUTLEY

IT may not be generally known that weak or yellowish sulphide-toned bromide prints can be altered in color, the sepia being intensified, or the original black or gray brought back, and that very simply. For the whole of the processes four solutions are required, which are all more or less what the photographer will already have by him. They are:

Mercury Bleacher

Mercuric chloride.....	1 ounce
Ammonium chloride	1 “
Water (hot)	20 ounces

Redeveloper

Any usual bromide-paper developer diluted with from four to ten times its bulk of water.

Sulphide Bleacher

Potassium ferricyanide	120 grains
Potassium bromide	1 ounce
Water	20 ounces

Sulphide Toner

Pure sodium sulphide	2 drams
Water	20 ounces

The dry sulphide-toned print is placed in a dish and evenly flooded with the mercury bleacher, which, it may be pointed out, is the usual bleaching-bath in the ordinary form of mercurial intensification. The action of the bath is very rapid, but the bleaching which it will effect on a print that has already been sulphide-toned is only a partial one.

As soon as the print has been evenly affected by this bleaching-bath, which will take from thirty seconds to one minute, it is given a thorough washing for at least ten minutes in running water. The washing must be thorough, the aim being to remove all traces of the mercury solution as thoroughly and as quickly as possible.

If the print when finished is to be of a black tone, we may now dilute any ordinary bromide-paper developer with ten times its bulk of water, and redevelop the bleached and washed print in this until just a trace of warmth still shows, when the print may be washed and dried as usual. When dry, all trace of warmth will have gone, and a fine black print will be the result, equaling the original, with, if anything, perhaps a slight increase in detail and loss of contrast.

If the print is to be toned with sulphide a second time, the developer should be diluted with only four times its bulk of water, and the print should be redeveloped as far as it will go, when a good degree of intensification will be seen to

be the result. The print is well washed, and is then placed in the sulphide bleacher, given above, washed quickly to remove any yellowness, and then put into the sulphide toner to darken. This is just the usual sulphide toning-process. The print is then merely washed and dried.

This last method will give a much darker sepia than the original, but not such a good color as the best sulphide-toned bromides, although it may be a great advance upon the weak print with which one started. If the result of the second sulphide toning is not liked, the print can be bleached in the mercury once more and redeveloped to a black color, and no doubt may be sulphided a third time, though I have not carried the process beyond a second blackening.

As far as permanence is concerned, I have had a bromide print that has been twice sulphide-toned, partly covered and exposed to light and air for the last three months, and others once blackened and twice blackened, exposed in the same way for nearly three weeks in an ordinary room, without any signs of fading showing themselves so far. The experiments were made to try and save some enlargements that were of a poor color, and were quite successful. In the case of small contact-prints, it is hardly worth the trouble, but for enlargements of a good size, which come expensive if they are spoiled and have to be made a second time, the process can be recommended. It is a good plan to make a preliminary trial on small prints on the same paper (as all makes of bromide paper do not act in the same way), blackening to different degrees to ascertain which gives the best result in the second sulphide toning.— *Photography and Focus*.



DAISIES

GEORGE E. TINGLEY



THE THANKSGIVING TURKEY
WILLIAM A. RHEINHEIMER



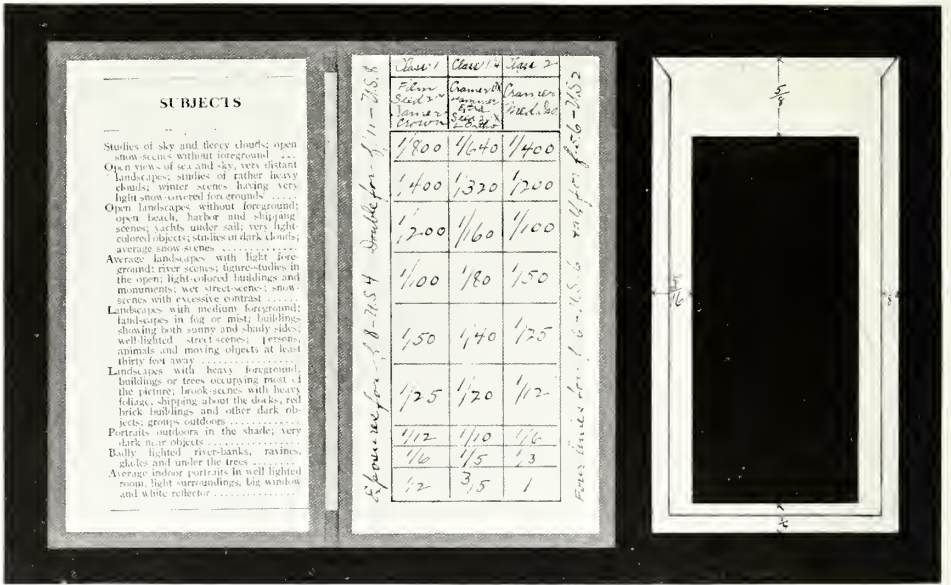


FIG. 1

FIG. 2

The Round Robin Guild Exposure-Guide in the Field

HERBERT A. CLAWSON

THE exposure-guide, as compiled by Phil M. Riley and published in PHOTO-ERA, with necessary changes to suit the light-conditions of each month, is without question a comprehensive table by which to judge all exposures, but it was intended, primarily, for study at home rather than actual use in the field. Some photographers, however, particularly beginners, wish to have their guide with them constantly for reference when on photographic expeditions, but do not wish to mutilate their copy of PHOTO-ERA each month by cutting out the two pages on which the tables are printed. Even if they did so, how long would those pages be in readable condition if carried in the pocket? For myself, I prefer to keep my magazines intact and later have them bound; for as bound volumes they make a fine record of the advance of photography, as well as a guide and inspiration to future work.

This being the case, it occurred to me to devise a convenient way always to have at hand such portions of each month's tables as were frequently used, whether working in the field or at home; and below will be found a description and diagrams of a folder which has proved both convenient to carry and easy to change to suit the requirements of each month.

Most photographers, like myself, use but two or, at most, three kinds of plates; and this makes it possible to place all necessary data in a small folder. This folder, Fig. 1, is made of two pieces of medium-weight cardboard, size $2\frac{1}{4} \times 4\frac{1}{4}$ inches, hinged in the middle with cloth, and the backs covered with cloth or leather. Mine is covered with "skiver," or book-binder's leather. On the left side is pasted the list of subjects cut from PHOTO-ERA; and on the right side a "cut-out" or mask, Fig. 2, description for the making of which follows.

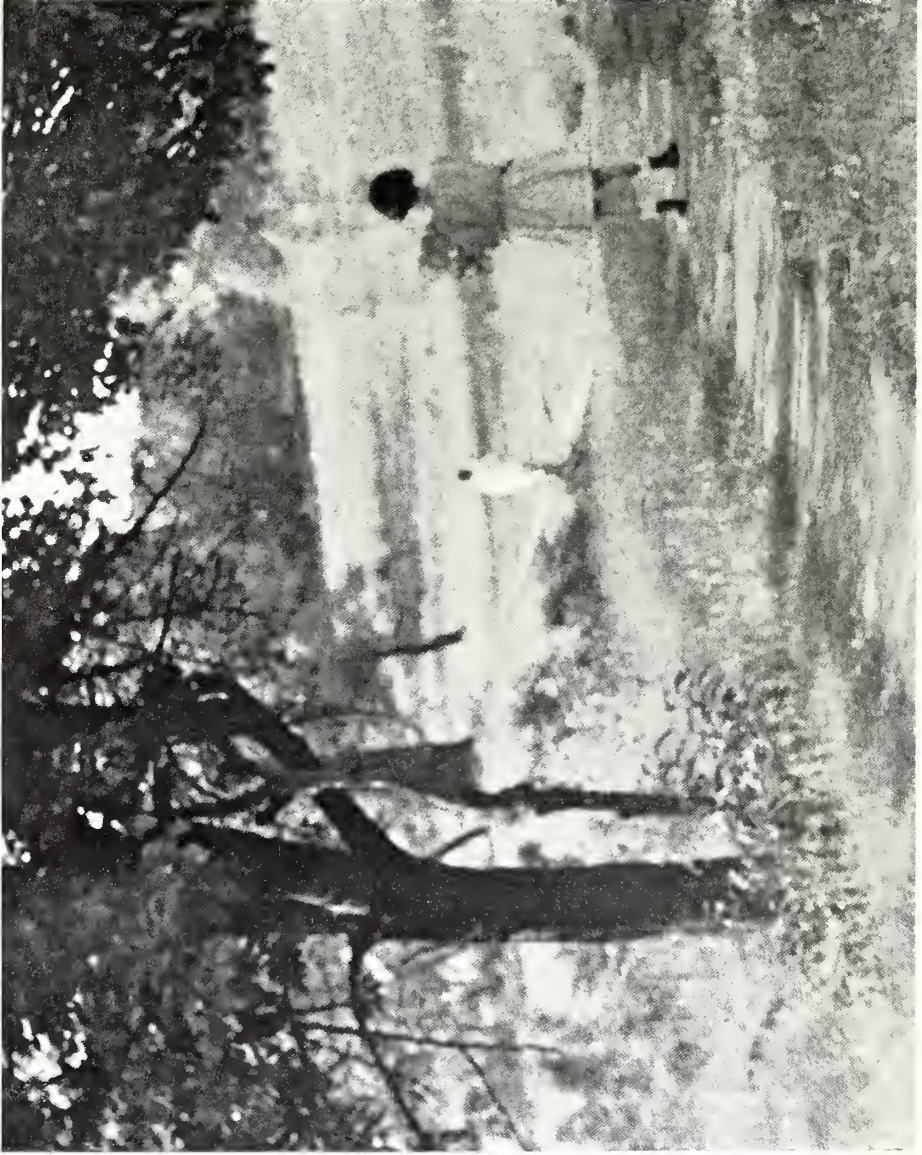
Take a piece of light-weight bristol-board, two inches wide by three and seven-eighths long, and cut an opening one and three-eighths wide by three inches long, the bottom line of the opening to be one-quarter of an inch from the bottom of the card. Next cut strips of the bristol-board one-eighth of an inch wide and glue them to the bottom and side edges. After the glue has thoroughly set, with a small brush or toothpick put glue on the face of these strips, and then place the cut-out in position on the right side of the folder.

Now rule the top edge of the cut-out with water-proof ink, as shown in Fig. 1 (it is best to use water-proof ink, as folder is sometimes used on wet days), marking in the top squares the "Class Number" or "Plate-Speeds," for future reference to the lists in PHOTO-ERA when changing the tables each month; and in the lower squares mark the names of the different kinds of plates or films commonly in use. It is possible to put in by abbreviation four or even five kinds of plates under each class in the small space allowed. On the bottom and side edges may be placed data with reference to the increase or decrease in the time of exposure for the different sizes of the diaphragm.

For the table of exposures cut a heavy piece of white letter-paper, one and one-half inches wide by three inches long; slip it into the cut-out at the top and bring into position; rule down lines to correspond to the top-ruling of the squares for class or plate names, and cross-ruling to correspond to the different subjects on the left side of folder. To complete the folder enter the exposure-data from the current issue of PHOTO-ERA. As a new issue of PHOTO-ERA appears, take out the slip and put in a new one on which is entered the required data and you are prepared for another month's difficulties of exposure. "DO IT NOW."



BUBBLE AND SQUEAK ROTARY POST-CARD



THE LURING FIELDS

FIRST PRIZE — OUTDOOR PASTIMES

A. B. HARGETT

EDITORIAL

The Dresden Awards

THE International Photographic Exposition, at Dresden, which has held the attention of the photographic world since the opening day, May 1, 1909, comes to a close the first of November. There never has been held an exhibition at which the verdict of the jury was satisfactory to every one concerned, and this is no exception. It will be charged by some disappointed exhibitors that in their case the jury surely erred. This may be true; but there was no intention of the arbiters to be otherwise than strictly honest in their deliberations, the men selected for this important and delicate task being men noted for their ability and fairness. Distinctions have been conferred in the various art, scientific and industrial sections which constituted the chief attractions of this large and magnificent exposition. Elsewhere in this issue will be found the list of successful English and American competitors in the departments of Professional and Amateur Photography, according to which the Americans captured *forty per cent* of the medals in the first three classes awarded to professional photographers. In the latter class honors were bestowed upon seventy-six exhibitors, representing Europe and America, except the International Union of Artist-Photographers (including the Photo-Secession), whose pictures were not for competition. Of these awards, which are in the form of a plaque, seventeen go to English and nine to American exhibitors. The latter include five Photo-Pictorialists of Buffalo. American manufacturing-industries, photo-mechanical processes and publishing-firms were sparingly represented, and the only award in these important sections — a gold medal — went to the art-publishing house of A. W. Elson & Company, of Boston. The Eastman Kodak Company was represented by the Kodak Gesellschaft, Limited, of Berlin, but its superb exhibit was non-competitive, as were those of Carl Zeiss, of Jena, and several other German and Austrian firms. Among well-known European firms, who won high honors at Dresden, are A. Lumière et ses fils, Lyons; Voigtländer & Sohn and C. P. Goerz. There were numerous fine exhibits which failed to receive recognition for the sole reason that their proprietors served on the jury of awards and hence were not eligible to compete. Conspicuous among these unselfish men, whose names are familiar to the readers of PHOTO ERA, are Rudolf Dührkoop and Hugo Erfurth, photographers; Karl Weiss and K. W. Wolf-Czapek, photographic editors, and the publishing firms of Wilhelm Knapp and Gustav Schmidt. With the exception of the State and Municipal Medals, the management of the Dresden Exposition has awarded only a diploma or certificate, which entitles the winner to a medal, provided he is willing to assume the cost of its production.

Animated Pictures with Accompanying Sounds

NEVER in the history of science has so much fruitful energy been displayed as at the present time. Photography, in particular, is reaping the benefits of important inventions, improved apparatus and advanced methods, which follow each other with startling rapidity. Cinematography is keeping pace with the mother-science, and the world is already indebted to Robert Thorn Haines, F. R. P. S., for material improvements in the photography and projection of animated scenes. The latest achievement of this eminent expert is the invention of a system, already patented, which simultaneously records and, likewise, reproduces objects in motion and the accompanying sounds by photography; i.e., the sound-waves in corresponding, proportionate degrees of opacity and transparency are impressed upon the same film, side by side with the pictures, so there is no variation in point of time. They are reproduced by a continuous electric current, varied through selenium and corresponding to the varying intensities of light, which operates a loud-sounding microphone. Anticipating a popular demand for the representation, on the vaudeville stage, of musical or histrionic feats together with the attendant sounds, enterprising managers, averse to accuracy, truth or consistency, are foisting upon the public an innovation which is, to say the least, grotesque and a travesty of the real thing.

For some time past the vaudeville establishments have included in their programs photophone-records — motion-pictures of which the human voice, in song or in speech, is a feature. Of course, the articulated words, or even the sounds expressive of different emotions, are not impressed upon the phonograph simultaneously with the photographic exposures of the original scenes, but are reproduced subsequently and at any convenient time or place. No intelligent person can have failed to notice the unsatisfactory character of this form of entertainment. We can recall no instance in which the voices of speaking or singing individuals, thus reproduced, synchronized with the pictures projected upon the screen; and, what is even more distressing, the voices intended to simulate those of the cinematograph-actors are, generally, quite unsuitable. One of the reasons why it is impossible to attain absolute synchronism of motion and sound in this manner is because the projection-apparatus and the phonograph (which reproduces the accompanying sounds) are widely separated, the former being in the rear part of the auditorium and the latter behind the screen. It is obvious, however, that the correct location of the sounds-producing device is near the picture-screen, and, to ensure perfect unison with the projection-apparatus, stationed some distance away, it necessarily must be electrically connected therewith. Although entirely distinct pieces of mechanism, each is dependent upon the other for the attainment of a result that has proved successful thus far only when the two instruments were joined together and thus operated in a very small hall. But the best method of producing absolute synchronism is the one evolved by Mr. Haines, and which involves an expenditure of money not calculated to tempt the average vaudeville manager, whose motives are solely mercenary.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

Making Lantern-Slides Direct

MR. DOUGLAS CARNEGIE, in *The British Journal of Photography* for July 9, 1909, describes the following method of preparing lantern-slides direct in the camera by a reversing-process.

A photo-mechanical or process plate is placed in the plate-holder glass side out, similarly to an autochrome plate; the image is focused on a reversed focusing-screen, and then the lens is stopped down to $f/11$, to minimize the effects of any small differences in the thicknesses of plate and focusing-screen. The exposure is then made through the glass of the plate.

The exposed plate is developed film side up for five minutes in the following developer:

A

Metal	24 grains
Hydroquinone	90 "
Sodium sulphite	2 ounces
Potassium bromide	40 grains
Water	30 ounces

B

Sodium carbonate (crystals)	2 ounces
Water	30 "

Equal parts of A and B are taken for use.

After development the plate is well rinsed in the dish for one minute, and then the following reversing-solution is poured on:

Ammonium bichromate.....	300 grains
Nitric acid (concentrated).....	3 drams fluid
Water	40 ounces

After two or three minutes in this bath the plate is rinsed for one minute under the tap, and is then re-immersed in the developer first used, but this time film side down, being prevented from touching the bottom of the dish by glass strips cemented to the dish at each end. The dish is then placed on the floor, and three-quarters of an inch of magnesium ribbon is burnt at a height of three feet vertically above the plate. The dish is covered for five minutes, at the end of which time the secondary development is complete. The plate is fixed in an acid fixer, washed and dried. It can be cleared, if thought desirable, by means of Farmer's reducer, the following procedure being recommended: place the plate for a minute in water just made distinctly yellow by the addition of potassium ferricyanide, wash, and then immerse in a very weak hypo bath. This process can be repeated if necessary.

The procedure above described is for line or diagram lantern-slides. For others, in which delicate gradation exists, the exposure during the second development is made by a No. 4 flat flame gas-burner instead of by magnesium, the light being kept on continuously during development, the duration of which is judged by inspection. The light from the flame can conveniently be directed at the plate by means of a mirror placed at an angle of forty-five degrees above the dish, the total distance from plate to light being about two feet, six inches.

Carbon Lantern-Slides

EXCELLENT lantern-slides, giving deep, luminous shadows and brilliant high-lights, may be made from carbon-tissues if due consideration is given to the fact that the tissues are manufactured primarily for making paper prints, and that the sensitizing, when it is intended to use them for slide-making, must be modified.

The best results will be obtained by using a one per cent to one and one quarter per cent solution of bichromate of potash, giving two minutes' immersion and using the tissue within two or three days of sensitizing, before it becomes somewhat less soluble.

Print deeply. The exposure should take at least double as long as for an ordinary paper print, and, owing to the weakness of the sensitizing-bath, it must be borne in mind that the exposure per tint will take longer than when the tissue has been sensitized on a three per cent or four per cent bath.

Development should be in water as hot as the hand can bear (110 to 120 degrees Fahrenheit), and should take at least five minutes, and may, when full contrast is desired, take longer.

The glass on which the slides are to be developed must have a preliminary coating of insoluble gelatine to hold the lighter half-tones, which would otherwise tend to wash away. The glasses may be bought ready for use, or prepared as follows:

Soak 180 grains of Nelson's No. 1 gelatine in twenty ounces of cold water, warm to melt and add ten grains of bichromate of potash; flow this solution over the plate, set on edge to drain; dry, and allow the plate to be exposed to light for a couple of days, that the coating may become thoroughly insoluble.

Take care to avoid dust at all stages and make sure that there are no particles of dirt in the mounting-water.

The slide, after development, should be put in a five per cent alum solution for a few minutes. Rinse and dry.

Examined at close quarters, the slide will show considerable relief, due to the gelatine, and an apparent lack of sharpness; but when projected on the screen (being illuminated by parallel rays from the condensers), the picture will leave nothing to be desired on the score of sharpness.

Bright blue, dark blue and sea green are the most effective colors, but Italian green is disappointing in the lantern, losing its distinctive green tone. Ruby brown, autotype brown and terra-cotta are all excellent warm colors, although the distinction between them when viewed on the screen is less than when they are used for paper prints, the effect of color being diluted by the amount of light passing through the lantern.

The particular lantern in mind is an electric arc instrument, giving an eight-foot square projection.

Some granularity may be noticed in the dark blue tissue, due to the varying size of the color-grains, but this is not apparent on the screen.—*Snap-Shots.*

Cutting Lantern-Slide Mats

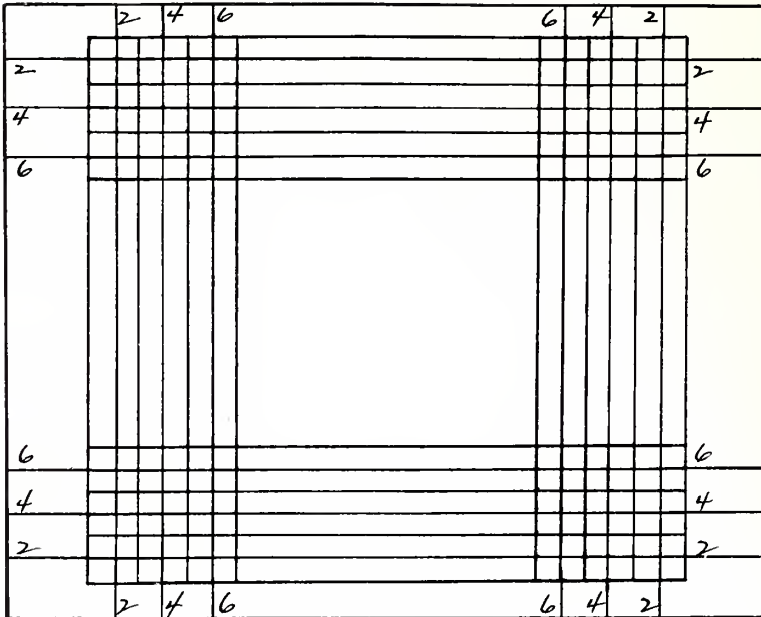
It has long been a puzzle to me why round-corner masks are almost invariably used for lantern-slides, when most works of art are included within rectangular spaces. Certainly the present commercial masks are in very poor taste.

The worker who wishes to make the most of every slide will do well to cut his own masks, not only because of the fact just mentioned, but also because he can suit the size of the opening to the requirements of each slide. Slides can be works of art just as much as prints; so that masking a slide becomes just as important as trimming a print, and equally worthy of individual treatment. It is folly to give each slide a mask-opening of uniform size and shape.

When many slides are to be masked it becomes tedious work to treat each one separately unless some special device is made use of, and Mr. George E. Fitch, of the Grand Rapids Camera Club, has suggested a means which is simple, practical and costs nothing. The accompanying drawing, which is exactly lantern-slide size, should be cut out and pasted to a light cardboard and used as a guide.

Lay the slide over this guide and note the size of opening best suited to the picture. This will be determined by the intersection of the ruled lines, which are numbered for convenience in working. If the size wanted is No. 4 for width and No. 2 for height, place the guide over a piece of black mask-paper and prick through the proper intersections with the point of a pin. This outlines the desired opening, which may then be cut out very easily with a knife and straight-edge.

The black paper from plate-boxes and film-rolls is excellent for making masks. It should be cut up into pieces $3\frac{1}{2} \times 4$ and kept ready for use at any time.



The Rising Front

MANY amateur photographers have found difficulty in the fact that the finder on folding hand-cameras gives no indication of the view when the rising front is moved from its normal position. In a recent issue of *The Amateur Photographer and Photographic News* an ingenious method is described for determining with reasonable accuracy how much it will be necessary to raise the front for any average subject.

EXCESS OF FOREGROUND

Even with average subjects which do not need special measures for the inclusion of lofty buildings, the hand-camera, with the lens opposite the center of the plate, usually gives far too much foreground. This is accentuated, in many cases, by the position in which the camera is held; that is, only about three feet from the ground, instead of at the eye-level, which is about five feet high. It would be an advantage in the case of cameras without any rising front if the lens were permanently fixed from half an inch to three-quarters of an inch higher than the plate center, but when the camera is turned over for upright views difficulty would arise.

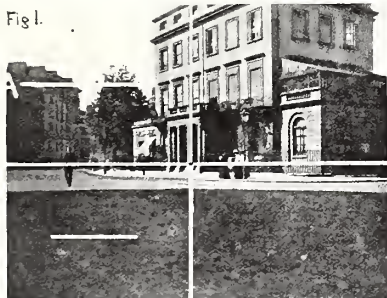


FIG. 1

Fig. 1 shows a view of buildings, and a great excess of foreground. The camera was held absolutely level, the lens being opposite the center of the plate. The position was about three feet from the ground, which is a comfortable position, and one which enables the finder and levels to be readily seen. It may be noted that the center white line runs through both the figures just about the waist-line. The ground being level, this indicates exactly the position in which we held the camera ourselves. We have also drawn a vertical white line across the print, mid-way between the two ends.

THE RULING OF THE FINDER

Now most of the brilliant finders fitted to hand-cameras nowadays have two such lines ruled across them, dividing the little finder image into four equal parts; and we want to compare the distance between the center horizontal line and

the top of the image with the rise obtainable on our front. In this case we had an available rise of two inches; and as the camera was a 4 x 5, this meant that we could place our lens *opposite the top edge of the plate*. This is exactly what we did in taking Fig. 2. Raising the front two

Fig 2.



FIG 2

inches raised the image on the plate two inches also, and as that image was *inverted*, what was the center line in Fig. 1 became the *top edge* of the plate in Fig. 2. If you will turn this page upside down for a moment you will see more clearly what we mean, thinking of the image as you would have seen it on the ground-glass had that been possible.

AN EXTREME RISE OF FRONT

It is quite apparent that this rise is excessive, for we have got now far more space above the building than we want, and we have cut off the whole of our foreground. Now the point that we wish to make absolutely clear to every user of hand-cameras with rising fronts is that this effect might have been seen quite easily *in the finder* by noticing first what point in the view came exactly on the central horizontal line, and then tipping up the camera until that same point came just at the bottom edge of the finder. Think of Figs. 1 and 2 as the finder pictures for the moment, and notice that the doorstep of the large house is just on the cross-lines in Fig. 1 when the camera is held normally, and just on the bottom edge when the camera is tipped up. So tipping the camera, then, gives us the view we shall obtain by holding the camera level, and having a two-inch rise of front on a 4 x 5 camera (or half the shorter measurement of the plate in any camera). But it is quite an easy matter to divide one of the little squares — mentally — as we have divided them, by white lines in Fig. 1 and by a black line in Fig 2. If we had adjusted the tip-up of the camera until the doorstep came level with line A, Fig 2, then the line B would have been the top edge of the finder, and we should have seen that a rise of a quarter of the plate, or one inch, was almost, but not quite, enough. [Cuts are reduced in size.]

OUR ILLUSTRATIONS

WE are especially fortunate in being able to present to our readers, this month, some representative specimens of pictorial photography from the London Salon. They are of the sort which lose in reproduction, and our half-tones were made necessarily not from the originals, but from copies of them on gaslight paper, yet we feel that a fair idea of the beauty of the prints is conveyed. Mr. Hoppé has spoken of them individually in the leading article of this issue, so no comment here seems necessary except to state that, having been passed upon by a jury composed of some of England's foremost pictorialists, these pictures should be very nearly representative of present-day English work.

R. Dührkoop's portrait of Max Fiedler is but another of this versatile artist's superb portrait characterizations. As usual, a speaking likeness of plastic quality is the result, conveying in some measure the studious tendencies and pleasing personality of the renowned conductor of Boston's famous orchestra. Data: July, 11 A.M.; good light; Voigtländer Heliar lens, 36-inch focus; 4 seconds' exposure; Seed plate; edinol developer; platinum print.

"Daisies," by George E. Tingley, is a pleasant reminder of the summer days just gone. Its composition is unique, yet attractive, the silhouetted figure adding considerable interest. Unquestionably, the subject as a whole lacks the effect of sunlight to liven it up. Data: 6 P.M.; no sunlight; front half of 6-inch Morrison wide-angle lens; small stop; 5 seconds' exposure; Cramer Crown plate; pyro developer; platinum print.

William A. Rheinheimer's "The Thanksgiving Turkey" tells its story with refreshing directness. Good grouping and low-tone harmony have done much to beautify the result. Data: December, 3 P.M.; fair light; Tessar lens, $f/6.3$, $2\frac{3}{4}$ -inch focus; 1-16 second exposure; Hammer Red Label plate; ortol developer; carbon print from enlarged negative.

The Monthly Contest

In this issue the awards for two competitions are announced, the judging of the prints in "My Favorite Poem" competition being delayed because of the editor's absence in Europe.

The first prize went to Beatrice B. Bell for a delightful little print illustrating a few lines from Milton's "Il Penseroso." Moonlight has been well simulated by photographing the sun, and the orb itself is well placed in the space. On the water is a reflection which forms a pleasing accent and serves to make the darkness of the shore seem all the greater. The silhouette of the trees is very decorative. Data: August, 6.45 P.M.; snap-shot exposure, stop U. S. 4; Kodak film; W. D. platinum print.

Mrs. F. E. Cheney's second-prize picture depicts one of those interesting little scenes of childhood — the pulling of petals from a flower, accompanied by a rhyme. It is obviously a snap-shot, yet the composition and scene in general are attractive, and the print serves admirably to illustrate "Fortune-Telling," by Ina Lord McDavitt. No data are available.

Bryant's "Forest Hymn" has been well illustrated by Harriet Lynam's third-prize print. It is a subject which loses immensely in reproduction; but the original is delightful in atmospheric quality, and the repetition of verticals clothed in varying degrees of mistiness is decidedly interesting, as are the reflections in the pool of water below. Data: January, 9.30 A.M.; sun through fog; Kodak film; quickest possible bulb exposure; pyro developer in Kodak machine; W. D. Platinum print.

"Outdoor Pastimes" proved one of the most popular competitions of the year and brought forth some of the most artistic pictures.

Mr. A. B. Hargett's first-prize print, "The Luring Fields" depicts the love of children for the open country, where there is plenty of fresh air and room to play undisturbed and undisturbing. We regret not being able to secure a better reproduction. Some of the most beautiful originals give the most trouble in this respect. The print itself, while beautiful in composition, is especially charming in the play of light and shadow, the delicacy of which is lost in the half-tone. The lines of the path, the locations of the two figures and the principal tree, are excellent. Data: August, 7 P.M.; 1-5 second exposure, U. S. stop 4; Polychrome plate; ortol developer; enlargement in sepia on Royal bromide from a 4×5 negative.

The second prize went to Richard Pertuch for a magnificent print entitled "Viewing." While essentially a sky study, the figures are so well placed and the camera-tripods so much in evidence that the subject seems to come within the scope of this contest. As a picture it is almost beyond criticism in tone and composition. Data: August, 5.30 P.M.; fair light; Orthomon plate 4×5 ; Voigtländer Collinear $f/8$; 1-25 second exposure; pyro developer; platino bromide enlargement.

"The Tennis-Player," by H. E. Stout, a superb example of high-speed photography, took third prize. Its composition is better than such hastily-made subjects usually are, although the background is a little disturbing and the curved white line very unfortunate. The figure has plenty of animation and the ball is pleasing because of its obvious roundness. Data: Cooke lens, 8-inch focus, $f/5.6$; Multispeed shutter; $\frac{1}{1600}$ second exposure; Sigma plate; dianol developer; Artura print.

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

Backgrounds

THE harmony of a portrait depends largely on whether a pleasing and fitting background was employed. A severe critic writing on this subject once said, "There should always be a strong sympathy between the subject and the background." This seems rather a misuse of terms, for how could one be in sympathy with a background? What this writer evidently meant was that there should be a harmonious relation between the subject and the background. Often the background is out of harmony and unfitted for the model posed against it.

The first thing to consider in selecting a background for ordinary portrait work is that it shall be of such tone and texture as not to obtrude itself upon the notice. Then, too, it should have a sort of elusiveness about it, so that one cannot determine what the background actually is, and it really becomes a secondary matter or is ignored altogether, the observer merely being cognizant of the fact that it is in keeping with the subject which is posed before it.

The background must relieve the contour of the figure, and may in places where the shadows predominate become seemingly blended or merged with the figure.

The amateur has, as a rule, no commercial backgrounds. He must employ the material which he has at hand, and, by so doing, he is quite sure to get better results than if he attempted to use backgrounds designed specially for studio work. Where a white background is desirable a white wool blanket will be found very satisfactory. With the light full on the surface one has a clear white background, while if it is shifted so as to be in shadow a delicately shaded background will be the result. Canton flannel in the double width and used the nap side toward the camera is a very good material for backgrounds in grays and low tones. Velour or wool plush makes fine backgrounds for subjects where a dark background is desired, and if of a deep yellow or old gold renders fine effects of lights and shadows, especially if the pile is somewhat roughened. A figured background is more or less of an eye-disturber. Where a figured background is employed the attention is diverted from the picture itself, and we have

what is called an "uneasy background." If, however, one is making a picture for decorative work a figured background can be used to work into the scheme of decoration.

In making indoor portraits, sometimes the wall of the room makes an excellent background, provided the paper is of a plain, neutral tint. The subject must, however, be placed far enough away from the wall to have the background out of focus. A two-toned paper — that is, a paper which has the pattern in a dark tone on a lighter one of the same color — often makes a pleasing background. It must be shaded in such a way that the pattern will not come out distinctly, and must seem to be in masses of light and shadow rather than in figures, which will detract attention from the subject itself.

If one uses the room itself for a background, then the figure must be placed far enough away from the wall so as to give the impression of space or depth. All small objects, such as pictures with white margins on the wall, light-colored bric-à-brac, or any obtrusive object which would spoil the composition of the picture, must be removed from the angle of the lens.

Among the materials for backgrounds one should not forget the ingrain papers, which may be used mounted on wooden stretchers such as artists use for stretching canvas. In place of something better, one could stretch a cord from one side of the room to the other and on it suspend his background. Material used specially for backgrounds should be tacked to a stick or roller. These can then be rolled up when not in use and kept free from wrinkles, and the stick also serves as a stay or weight when arranging the background.

The shadow background is used most effectively, and often gives unusual depth to a picture. The shadow background is nothing more nor less than a dark corner of a room. The corner or end of the room must be so dark that there is little or no detail to be discovered on the ground-glass, and if not dark enough it can be made still more so by the judicious use of curtains and draperies to shut off the light. The subject is posed before this dark corner, and a least ten feet away from the wall itself. The result in the finished picture is sometimes quite remarkable, and is always interesting.

Clever amateurs, and professionals too, often make a background on the plate itself, using a plain material against which the subject is posed and then working on the negative to get certain effects of light and shade, distances, etc. Some very artistic pictures have been made in this way, and in a future number of the Guild our members will be enlightened as to some of the secrets of the art; for it really is an art, and one which any amateur may learn easily.

Copying Pictures

SEVERAL inquiries have been received during the past month asking for directions about copying pictures, so a little more space will be devoted to the subject than can be spared in the regular column in which queries are answered. In this way more detailed directions can be given to the querists, and other members of the Guild who desire similar information but have not asked for it will be benefited.

Copying pictures is not so simple a matter as one might suppose from the fact that the subject does not have to be posed and will keep the same position no matter how long the artist may be in getting ready to make the picture.

There are several points, however, which one must heed if he means to succeed in this branch of work; and where is the amateur who does not mean to succeed, no matter what branch of photographic work invites his attention?

Pictures to be copied may be classed under three heads: (1) black and white pictures, such as engravings, line drawings, wash drawings, woodcuts, etchings, etc.; (2) photographs and half-tone work; (3) colored pictures such as oil-paintings, pastels, etc.

The first thing is to take stock of one's apparatus and see what is lacking. A copying-stand is a great convenience and facilitates the work; but though it is a convenience, it is not a necessity. A vertical support with the picture placed in such a manner that its center shall come on an exact line with the center of the lens is all that is required. A board the width of the bed of the camera and about four feet in length will be required, and at one end of this board is nailed a small piece of board at right angles with the longer one. This small board is the support for the picture.

The picture is first placed in a perpendicular position against this board and kept in place by small weights against the bottom or by thumb-tacks which fasten it to the board. The camera either rests directly on the long board or is raised above it by means of books or of blocks, the adjustment depending on the size of the picture to be copied.

The center of the picture must come on an exact line with the center of the lens, and to ascertain if it does so attach a piece of thread to the center of the lens-cap by means of a bit of gummed paper, then carry it along taut to the center of the picture, and accordingly as it is deflected one way or the other move the camera to bring it on a straight line.



"I walk unseen
On the dry, smooth-shaven green,
To behold the wandering moon
Riding near her highest noon,
Like one that had been led astray
Through the heaven's wide, pathless way;
And oft, as if her head she bow'd,
Stooping through a fleecy cloud."

— Milton's "Il Penseroso."

FIRST PRIZE — MY FAVORITE POEM
BEATRICE B. BELL

The camera, copy-board and picture must be perfectly rigid during the time of exposure, so one should choose a room where there are not liable to be vibrations of the floor. In the summer it will be found more desirable to copy outdoors, in the shade of a building. It not only shortens the time of exposure, but gives a better lighting, and also there is little danger of the table or camera being jarred while the plate is being exposed.

While one may use the lens which he employs in making pictures, still, where one has much copying to do and the best results are desired, then a flat-field anastigmat is best for all copying-work. If the ordinary lens is used, then it must be well stopped down to get good definition all over the plate.

The picture to be copied must be placed in an all-around light; that is, it must be illuminated evenly all over, hence the outdoor light is perhaps the most efficacious. If the picture is illuminated by the light from a window, then the farther the picture is placed from the window the more even will be the illumination; but of course it cannot be taken too far from the light,

as not only would the exposure be greatly prolonged, but the detail would be lost.

The plate used for copying black and white pictures is a medium slow plate, and if the paper is thin, then one should back it with a piece of either red or black pasteboard. This should also be done if one is copying from a book.

In copying from books a thin piece of board should be put back of the leaf, and the leaf held flat against it by means of rubber straps.

In copying paintings or colored pictures of any kind the only plate to use to give correct

In developing, use a developer which will give both detail and density. Metol-hydroquinone will be found to be a most satisfactory developer for this class of pictures.

To copy manuscripts one should have a short-focus lens, and the bellows-extension must be at least twice as great as the focal length of the lens. An ordinary hand-camera may have its lens fitted with what is called an ampliscope, which extends the power of the lens so that handwriting may be copied in the same size as the original. If the manuscript to be copied is on time-yellowed paper one should use an orthochromatic plate.

If one has a fondness for collecting autographs he can get by means of his camera some very valuable facsimiles, for most collectors are quite willing to allow the amateur to make copies of whatever of his manuscripts he should desire.

In copying, the object to be aimed at is to get as sharp a reproduction of the picture as possible. If the copy is blurred either the stand was jarred during the exposure or the image was not properly focused, and if the center of the copy is clear and the sides blurred or indistinct, then the lens does not cover the picture, or else the focusing-screen and the picture were not exactly parallel with each other.

Any one who can copy paintings or manuscripts with the camera, and do it well, has the means of making quite a satisfactory addition to his finances.



"The childish voices chanting,
The air familiar grew,—
A rhyme of fortune-telling
We older children knew,
I watched the little singers,
With bending golden heads,
A-pulling daisy petals,
And this is what they said :
' Rich man, poor man,
Beggar man, thief,
Doctor, lawyer,
Merchant, chief.'"

—*"Fortune-Telling,"* by Ina Lord McDevitt.

SECOND PRIZE — MY FAVORITE POEM
MRS. F. E. CHENEY



"The groves were God's first temples."

— *Bryan's "A Forest Hymn,"*

THIRD PRIZE — MY FAVORITE POEM
HARRIET LYNAM

color-values is the orthochromatic. Oil-paintings should always be copied in a light coming from a similar direction to that which is shown in the picture. This will avoid any reproduction of brush-marks, as would be the case if the picture were lighted from an opposite direction.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

Prizes

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

Subjects for Competition

October — "Vacation-Scenes." Closes November 30.

November — "Glimpses of Foreign Lands." Closes December 31.

December — "Self-Portraits." Closes January 31.

1910

January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

August — "In the Country." Closes September 30.

September — "General." Closes October 31.

October — "Scenic Beauties of America." Closes November 30.

November — "Group Portraits." Closes December 31.

December — "Flashlights." Closes January 31.

Awards — My Favorite Poem

First Prize: Beatrice B. Bell.

Second Prize: Mrs. Frederick E. Cheney.

Third Prize: Harriet Lynam.

Honorable Mention: Mrs. S. B. November, John J. Reilly.

Meritorious work was submitted by Nellie E. Loucks, C. M. Fox, Alice Margaret Dickinson, May Bartlett Leland, Jos. M. Rogers, Everett S. Miller.

Awards — Outdoor Pastimes

First Prize: A. B. Hargett.

Second Prize: Richard Pertuch.

Third Prize: H. E. Stout.

Honorable Mention: Mrs. Charles S. Hayden, Alexander Murray, Mrs. Alice F. Foster, J. L. Anderson.

Meritorious work was submitted by H. G. Comstock, Paul D. Ulrich, Burr McMillen, Frank Berry, Gust Horlin, Alfred Holcombe, Richard Pertuch, F. E. Bronson, Alice Margaret Dickinson, Clara Jacobson, John J. Reilly, Beatrice B. Bell, Harry Kendall.

The Forthcoming Competition

MANY members of our Guild have traveled far, "strange countries for to see," and not one but has taken that invaluable companion the camera. It is therefore to our traveled members that the contest for November, closing December 31, will have special interest. The subject is "Glimpses of Foreign Lands," and of course any one who has gone abroad with his camera has brought back many glimpses of the strange and interesting countries he has visited.

Now what is specially desired in this contest is not so much the pictures of places, as the pictures of the people, especially the humbler classes — pictures depicting them pursuing their daily vocations and avocations. We are all of us more or less familiar with the noted churches and towers and castles, even though we may not have seen them with the actual eye, for are not their counterparts on every hand displayed for sale? We have not, however, so many pictures of the folk themselves who live and move and have their being in these places, and it is only through the amateur that we can hope to obtain many pictures of these inhabitants whose ways are so unlike our ways, whose dress is so unlike our dress, and whose every way of living differs so materially from our own.

So it is hoped that the members of the Guild who take part in this special competition will select those pictures which are typical of foreign life, rather than to send a photograph of some famed church or castle. Interesting scenes along the wharves are always to be found, and every amateur uses many plates taking these particular subjects. Wayside shrines with the simple worshipers kneeling before them, a peasant at work in his field, the grandmother and the babe at the door of a cottage, the children at play in the fields and lanes, or any similar subject is well worth a place in the competition.

Surely our traveled members must have brought home in their pictorial note-books many unusual and interesting pictures quite out of the common run of foreign pictures, and it is this sort that it is hoped will appear in the competition.

It seems almost unnecessary to add that the pictures should be mounted; but each competition brings unmounted prints, which never stand as good a chance of winning a prize as does the picture which is well finished and artistically mounted.

BEGINNER'S COLUMN

THE Round Robin Guild seems in a measure to have outgrown itself. With fifteen hundred enthusiastic members in all parts of the American continent, and many abroad, it is natural that many pictorialists of high standing should be included and participate in the monthly competitions. As a result, these older and more successful workers in photography have, for the most part, carried off the honors at the expense of the beginners, for whose benefit the Guild was primarily intended. Thus, the publisher of PHOTO-ERA has found himself in a quandary how best to provide for these two distinct classes of camerists in the Guild. As a possible solution of the problem he submits to his readers a separate series of

Quarterly Contests for Beginners

In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.

All prints submitted, except prize-winners, will be returned if postage is sent.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy will be given Honorable Mention.

Thus, beginners are given a much better opportunity than hitherto for recognition and com-

parison of their work with that of those more nearly in the same class with themselves. Those who compete here, however, may do so in the monthly competitions as well, and, in either case, all work submitted will receive personal criticism from the editor of the department — an invaluable feature to the beginner in improving the quality of his photographs.

Subjects for Competition

IN making this announcement an attempt has been made to choose subjects of a timely nature, and to enable competitors to make the necessary pictures just before the closing-date, if this is desirable. Pictures made previously are just as eligible, provided, however, they have not already received an award from PHOTO-ERA.

HOME-SCENES — CLOSES JAN. 15, 1910

This is a favorite subject of many workers at that season of the year, particularly those who do not enjoy winter-work outdoors. In the contest, however, are included scenes outdoors as well as within, and in summer as well as winter. The essential feature about them all must be that they portray familiar home-scenes with figures. Pictures which are essentially portraits may be entered, provided enough of the surroundings is in evidence for one familiar with the scene to recognize it.

SNOW-PICTURES — CLOSES APRIL 15, 1910

Here is presented a very wide field, so that nearly every camerist may enter one print, at least. The pictures may be snow-covered landscapes in all conditions of weather, park-scenes, outdoor sports on the snow or ice and a variety of other subjects, including human life or not, as desired.



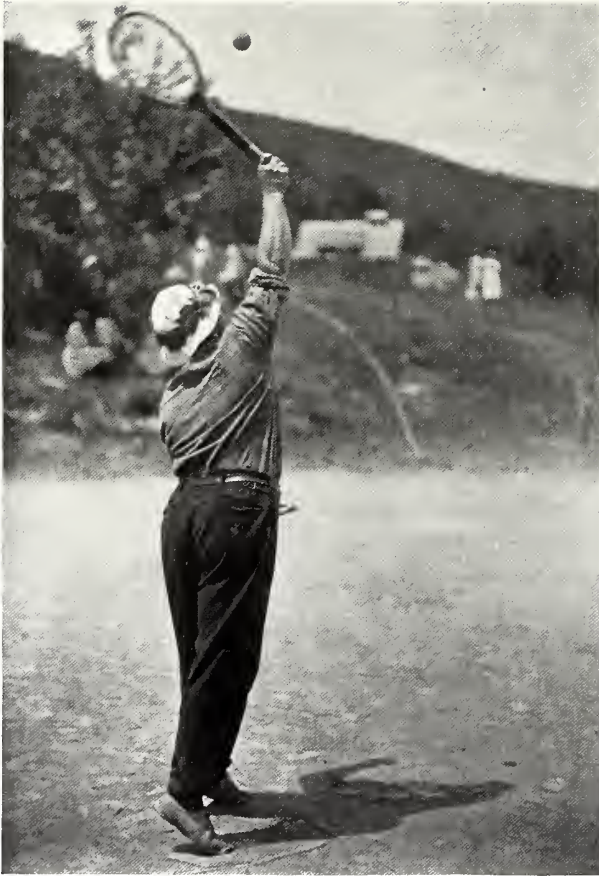
Whatever you do, be genuine, even though in doing so you are a genuine damned fool.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

F. D. T.— Yes, you can develop printing-out papers instead of toning them. Place the print for five minutes, or perhaps a little longer, in a ten per cent solution of bromide of potassium; then develop in any good developing-solution. Hydroquinone developer is specially good for developing printing-out paper. In these dark days one will find this method of finishing prints on printing-out paper very efficacious, for the reason that a faint image will develop up into a strong picture.

THIRD PRIZE
OUTDOOR PASTIMES



THE TENNIS-PLAYER

H. E. STOUT

CHARLES DEANE.—To size and salt paper at the same time proceed as follows: dissolve one hundred and eighty grains of ammonium chloride, three hundred grains carbonate of soda crystals, and ninety grains of citric acid in seven ounces of hot water, putting in the ingredients in the order given. Stir the solution well and filter either through filtering-paper or through fine muslin. Take four hundred grains of arrow-root, rub it to a cream with a little water, and then boil in twenty ounces of water until the solution is clear. Mix the other solution with this very thoroughly. Put the solution in a porcelain tray large enough to contain the paper to be sized and immerse the paper in the solution. Drain and let it almost dry, then dip in again, removing the superfluous moisture by drawing the paper over a glass rod or across the edge of the tray. Another salting-bath made of gelatine is composed of one hundred and forty-four grains

of ammonium chloride, one hundred and forty-four grains of nitrate of soda, fifteen grains of gelatine and fifteen ounces of water. Use hot water and dissolve each ingredient before adding another.

GERTRUDE H.—It would seem that the trouble with your autochromes which have poor shadows and lack detail is that your developer was too warm. It should never rise above seventy degrees, and if it drops two or three degrees lower it will do no harm.

J. L. R.—In measuring chemicals for photographic solutions the dry ingredients are weighed and the liquids are measured. Get black lusterless paint for painting the inside of your camera and the parts of the wood which have been worn off. The prints which you sent to the competition were unmounted, and consequently were not as attractive as they would have been if properly finished.



“VIEWING”

SECOND PRIZE — OUTDOOR PASTIMES

RICHARD PERTUCH

D. L. G.— The strength of a rodinal developer for tank development should be about 1 to 70. Rodinal is an excellent developer for time development, because it very seldom, if ever, stains the negative. Yes, you can make lantern-slides direct from your negative by contact-printing. Use metol-hydroquinone to give both density and detail to the slide. Use the flash-sheets for flashlight work. You will find them much easier to manage than the flashlight powders.

BEN. D. SMITH.— See PHOTO-ERA for May, 1906, for directions for separating gold from alloy. Use glycin for making lantern-slides in which you wish a great deal of detail in the shadows. For ordinary slides use metol-hydroquinone. This developer brings out the detail well and gives good density to the plate.

PAUL W. E. EDDINGFIELD.— It would not be possible to say that the print-modifications of platinum are absolutely permanent, neither would it be true to make that statement in regard to any other print, no matter by what process, though carbons and platinum stand for the most permanent processes of printing. Bromide, too, if properly finished, is practically a permanent print. No, there is no formula yet discovered which will act on the platinum for reducing the image without more or less affecting the keeping-quality of the print.

A. S. SCHWEINHART.— The reason for the spots coming on your gaslight prints after being placed in the fixing-bath is because the prints were not rinsed sufficiently from the developing-solution, and then were not moved about in the fixing-bath during the process of fixing. Instead of the acid bath which you are using, try the acid bath recommended by the makers of the paper. I think you will like it much better.

GEORGE SCHERR.— From the specimens of the prints sent me for criticism I should say that you would stand a very good chance of winning a prize in some of our monthly competitions. I should advise making enlargements from some of your small negatives, for they are remarkably clear and full of detail. "In Chinatown" is particularly good in that respect.

CARL M. GILES.— It is not necessary to use a shade for the lens during the making of a flashlight; but in case the flash comes within the angle of the lens, then it must be shielded so that it will not be affected by the flash. If the flash is included in the picture, then the plate will most likely be fogged.

FLORA S.— You can tint the whites of your platinum prints by dipping them in a strong concoction of tea or coffee. Let the print remain in the liquid for a few minutes, till the color is thoroughly soaked into the print.

G. BARTON.— Yes, enlargements made from small negatives are admitted to the contests of the Guild. If you have some specially fine negatives which are small in size it would be to your interest to have enlargements made, instead of sending the contact-prints. Be sure that each print is properly mounted and marked with your name and full address.

SARA ROWE.— Your negative is far too sharp for the subject. You know at twilight objects are usually more or less indistinct, and if you wish to take a picture and have for the subject "Twilight," then you must use a soft focus and take care not to over-expose. The tone of the print is very pleasing, but I would advise trimming off at least an inch at the bottom, so as to bring the horizon-line into its proper position in the print.

L. P. H.— Use hydrochloric acid to clear your prints, instead of acetic acid. The proportion is one ounce of the acid to sixty of water. To remove the yellow stain from your negative use a weak solution of hydrochloric acid in which has been dissolved a little alum. Litmus paper is used to test the acidity or the alkalinity of solutions. If the solution is too strong in acid it will turn blue litmus paper red, and enough of some kind of alkali must be added to the solution until it will turn the red back again to blue. When a bath is neutral—that is, when it does not contain either acid or alkali in excess—then the paper is not affected by its action.

ANNA W.— Why not try the "seconds" for your proof paper? You can buy paper of this kind much cheaper, and it is often good enough to make prints, owing to the fact that the manufacturers when putting up paper discard every sheet which does not seem perfectly good. It may be only a little flaw or discoloration, but it is thrown out. The amateur gets the benefit of what is good by buying these "seconds" at a very much cheaper rate than the first-class papers.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"STUDY OF A BOY," C. R.— This is a half-length picture of a young boy posed with the back toward the camera and the face turned so as to show a part of the profile. The beauty of this picture is in the admirable way in which the hair and the texture of the garment are depicted. There is a certain looseness about the quality of the print which suggests a charcoal drawing. The lighting is excellent; the background, which is of neutral tone, is harmonious. The criticism would be that the arm which shows at the right does not come far enough into the picture. It is cut off at a place where it gives the impression of the picture wanting something. This picture is printed in sepia, but if done in gray on rough paper it would be doubly attractive.



A FEW HONORABLE MENTION PRINTS — OUTDOOR PASTIMES

From left to right: "A Corner Kick," Alexander Murray; "Kodaking," Mrs. Charles S. Hayden; "Swinging," J. L. Anderson; "A Fish Story," Mrs. Alice F. Foster.

"WHERE DOES THE MUSIC COME FROM?" H. B. S.—This is one of the cleverest bits of genre work which has come in for criticism for a long time. It depicts a little two-year-old standing on tiptoe and striving to reach the mechanism of a phonograph. The attitude of the child is fine. It is so evidently stretching its little body to the fullest extent to reach the desired object, and one can see that the child is utterly oblivious of anything or anybody outside of the phonograph. The instrument itself is in a subdued light, and consequently the whole attention is concentrated on the child.

"AT THE LANDING," M. F. D.—This picture is of the class which it is hoped our Guild travelers will send in for this month's competition. It shows a wharf with fishboats drawn up ready for unloading the catch. An old woman with a curious market-basket stands watching the men who are busy unloading the boats. One of the men is admirable, with his great boots, his close cap, his funny, tight coat, as he stoops to lift a great creel of fish. This is evidently a snapshot, so one cannot be too critical; but the fault is that the figures are almost too large for the picture. Two or three feet farther away with the camera would have made this a very clever bit of work. The scene is in an interesting Finland fishing-town.

"THE LONESOME PINE," F. H.—The idea of this picture is well worked out. It portrays a tall pine on a bleak, snow-covered hillside, while beyond in the far distance are ranges of snow-clad mountains with an uninhabited valley intervening. The picture truly depicts a most lonely and lonesome place. It is specially well taken, the perspective helping greatly in emphasizing the loneliness of the pine. This picture might serve as an illustration for Heine's poem:

"A lonely fir-tree standeth
On a chilly northern height;
The snow and the ice, while it sleepeth,
Weave round it a garment white."

Two other pictures of equal interest are by the same amateur. One is entitled "Desolation," and portrays a tiny log house set in a little valley, while all about and running down to it are snow-clad hills covered with scattering pines. I really makes one shiver to think of living in such a place as depicted in this picture. The other is called "Pines and Snow," and shows a glimpse of pine woods, a strong light shining through them which throws the shadows of the trees across the snow in the foreground. All of these pictures have the rare quality of depicting snow as snow, and are unusual in this respect. The composition and treatment of each picture is also excellent.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
AnSCO Film, N. C. and Vidil	Hammer Extra Fast	Lumière Panchro C
Cramer Crown	Hammer Extra Fast Ortho	Class 4
Cramer Crown Non-Halation	Hammer Non-Halation	Stanley Commercial
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Class 5
Cramer Inst. Iso Non-Halation	Seed 26x	Cramer Commercial
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Plain
Cramer Trichromatic	Seed L. Ortho	Defender Non-Halation Ortho
Defender King	Seed Non-Halation	Defender Ortho Slow
Defender Ortho Inst.	Seed Non-Halation Ortho	Hammer Slow
Eastman N. C. Film	Standard Extra	Hammer Slow Ortho
Ensign Film	Standard Orthonon	Class 8
Hammer Special Extra Fast	Wellington Speedy	Cramer Slow Iso
Imperial Special Sensitive	Class 1 1/2	Cramer Slow Iso Non-Halation
Imperial Orthochrome Special Sensitive	Lumière Ortho A	tion
Kodoid	Lumière Ortho B	Class 12
Magnet	Class 2	Defender Queen
Premo Film Pack	Cramer Medium Iso	Seed Process
Seed Gilt Edge 27	Cramer Medium Iso Non-Halation	Class 100
Standard Imperial Portrait	Wellington Iso Speedy	Lumière Autochrome
Standard Polychrome		Lumière Red Label Slow
Stanley Regular		
Wellington Extra Speedy		

The Round Robin Guild Exposure-Guide For November

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of November on any fine day at noon, when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used. Treble it when the light is rather dull, and between 9 and 10 A.M. and 2 and 3 P.M. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. At 11 A.M. and 1 P.M. increase the exposure one-fourth. From 10 to 11 A.M. and 1 to 2 P.M. increase it one-half.

SUBJECTS	PLATES (List on Opposite Page)											
	Class ½	Class 1	Class 1¼	Class 1½	Class 2	Class 2½	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds	1/512	1/256	1/200	1/160	1/128	1/100	1/64	1/50	1/40	1/32	1/20	2/5
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds	1/256	1/228	1/100	1/80	1/64	1/50	1/32	1/25	1/20	1/16	1/10	4/5
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds	1/128	1/64	1/50	1/40	1/32	1/25	1/16	1/12	1/10	1/8	1/5	1 3/5
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes	1/64	1/32	1/25	1/20	1/16	1/12	1/8	1/6	1/5	1/4	2/5	3 1/5
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away	1/32	1/16	1/12	1/10	1/8	1/6	1/4	1/3	2/5	1/2	4/5	6 2/5
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/16	1/8	1/6	1/5	1/4	1/3	1/2	2/3	4/5	1	1 3/5	13
Portraits outdoors in the shade; very dark near objects	1/8	1/4	1/3	2/5	1/2	2/3	1	1 1/3	1 3/5	2	3 1/5	26
Badly-lighted river-banks, ravines, glades and under the trees	1/4	1/2	2/3	4/5	1	1 1/3	2	2 2/3	3 1/5	4	6 2/5	51
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	3/4	1 1/2	2	2 2/5	3	4	6	8	10	12	19	154

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

August 24, 1909

931,813. ⁵FILM-REVERSING MECHANISM. JOSEPH M. TRAVISS, Philadelphia, Penn.

This device consists of a fire-proof box for protection of the film, with space provided for revolving two film-reels, one above the other. The upper of these reels is revolved by a belt from the display-mechanism of the kinetoscope. When a film has been displayed it is removed from lower position in the reversing-box, the end attached to the upper roll and, when a new film is exhibited, the belt operates simultaneously to rewind the previously-exhibited film to the upper roll, thus reversing it ready for exhibition again.

932,091. LOADING-DEVICE FOR PLATE-RACKS. FREDERICK W. BARNES. Assignor to Eastman Kodak Co., Rochester, N. Y.

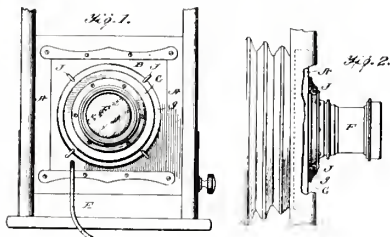
The present invention provides a means of loading plate-tanks in dim light without danger of the plates contacting with each other and consequent damage to the film. The device consists of a supporting-frame which fits over and around the top of the tank, and a guide-member above with a slot provided for the passage of the plates. The guide slides from one side of the tank to the other on the supporting-member, stopping for the insertion of each plate in proper position, regulated by spring-actuated push-buttons which snap into seats at proper distances apart.

932,265. WASHING-APPARATUS FOR PHOTOGRAPHIC PRINTS OR THE LIKE. HERBERT J. FRITZ, Albert Lea, Minn.

A receptacle of cylindrical form is piped for intake and outlet of water, the outlet pipe being adjustable to any height within the receptacle and acting as a syphon. Any depth of water may be maintained by changing the level of the outlet.

932,326. CAMERA. ARTHUR L. RICHARDSON, Melrose, N. M.

By means of this device only one lens-board and shutter are necessary to use lenses of several different sizes on the

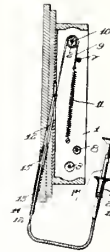


same camera, provided the shutter is of the "behind-the-lens" type such as is frequently used for studio work. Instead of several lens-boards, only a supporting-frame G for

each lens is required. This is beveled at its outer edge, as shown at g. The screw-eyes J when turned as in Fig. 1 hold the lens in place or permit its removal when given a quarter-turn.

932,381. PHOTOGRAPHIC SHUTTER. WM. F. FOLMER. Assignor by mesne assignments to Eastman Kodak Co., Rochester, N. Y.

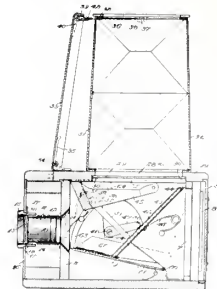
With the actuating-means provided, both the duration and the extent of the exposure are under the direct control of the operator up to the very instant the exposure is made



and subject to change during the period of exposure. Pressure on the thumb-piece 23 moves the flexible conductor 13 and opens the roller-blind shutter. Removal of the pressure closes the shutter. To hold the shutter open for a long exposure, or while focusing, the slide 20 is turned relatively to the guide-tube 16, at the same time pressing on the thumb-piece 23, so that the projection 22 will enter the notch 18, which is offset from the slot 17.

932,392. PHOTOGRAPHIC CAMERA. CHAS. E. HUTCHINGS. Assignor by mesne assignments to Eastman Kodak Co., Rochester, N. Y.

A simple camera of the reflecting-type intended to facilitate focusing and exposing. It is so constructed that the usual reflecting-mirror also serves as one of two shutter-members, both of which pass across the field of the lens



from the same side, one in advance of the other, the exposure in this respect being similar to that obtained by a focal-plane shutter. Thus, a single operation serves to move the reflector out of the optical field and to effect the exposure, and the setting of this reflector in focusing-position also serves to set the shutter ready for exposure. The mirror 42, pivoted at 44 and actuated by the spring 46, forms the upper shutter-member, while the member 59, pivoted at 60 and actuated by the spring 61, forms the lower. Suitable means for controlling these members and producing exposures of varying duration are provided on the outside of the camera-box. The shutter-release allows the member 42 to travel upward against the seat 45, where it strikes the latch 63, throwing it out of engagement with the member 59 and allowing it to travel upward to the upper member and into engagement at their sides nearest the lens, in which position the shutter is again closed.

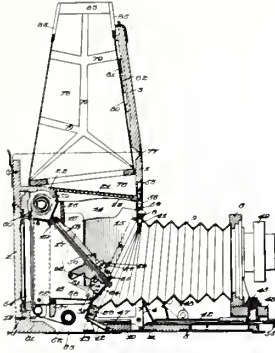
August 31, 1909

932,456. ROLLED PACKAGE. GEO. J. FALLESON. Assignor to Eastman Kodak Co., Rochester, N. Y.

This patent covers the well-known custom of folding over the end of the paper backing of roll-films before applying the gummed-paper fastener encircling the roll. This permits the easy breaking of the seal by running the finger-nail across it adjacent the thick edge of the paper formed by folding.

932,457. CAMERA. WM. F. FOLMER. Assignor to Eastman Kodak Co., Rochester, N. Y.

A folding box-camera constructed, for the most part, according to the familiar Graflex principle, but intended for roll-films. The usual focal-plane shutter is provided with a



safety-device preventing the rewinding of the shutter while the reflecting-mirror is up, thus eliminating the danger of fogging the film. Surplus space at each side of the camera-box may be used for storing extra rolls of film.

932,458. FOCUSING-DEVICE. WM. F. FOLMER. Assignor to Eastman Kodak Co., Rochester, N. Y.

A device familiar to users of the various Eastman cameras, consisting of two oppositely-disposed finger-pieces and accompanying mechanism. By pressing these pieces together the front-board of the folding-camera may be moved to any position required for correct focus of the lens. Releasing these finger-pieces clamps the front-board to the track of the bed below, wherever placed.

932,485. PHOTOGRAPHIC SHUTTER. PAUL J. MARKS. Assignor to Eastman Kodak Co., Rochester, N. Y.

A shutter, diminutive in size and of the T. I. B. variety, employing a plurality of pivoted, overlapping blades and provided with suitable operating-mechanism to make exposures of varying duration. The iris diaphragm is outside the shutter-casing, between it and the lens-board.

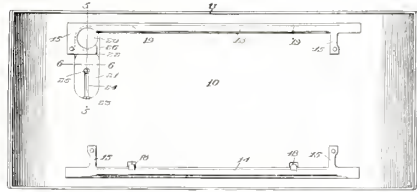
Sept. 7, 1909

933,312. CAMERA ATTACHMENT. HAMMOND G. KORINKO and ANTON J. ASP, New York City.

A simple and efficient attachment which may be readily applied to cameras of various constructions and so arranged that the shutter may be operated automatically after a given time to permit one or more persons to be posed before the camera without the necessity for manually operating the shutter, as usual, thereby permitting a person to take his own picture or to pose as one of a group. The device consists of an enclosed clock-movement which, after the time for which it was set, trips the shutter.

933,476. CAMERA-BACK. ROBERT KROEDEL. Assignor to Eastman Kodak Co., Rochester, N. Y.

To prevent buckling of the film, particularly at its edges, and cause it to draw flat across the exposure-opening wholly in the focal plane of the lens, two parallel strips 13 and 14,



preferably of resilient material such as thin spring metal, are placed on the inner side of the camera-back. These project inwardly and in normal contact with the film-tracks on the camera proper. Being curved slightly in cross-section, these strips provide a rounded contact and are supported by means of resilient arms 15, so as to arrange these in brushing contact with the rear surface of the paper backing of the film and thus press the film into a flat position, in which all portions are in the focal plane of the lens.

In the event that it is desired occasionally to employ a plate instead of a film in the camera, as when a single exposure is to be immediately developed, it may be arranged against the back and retained beneath the strips 13 and 14. Supporting-brackets 18 are provided upon the under side of the lower strip 14, formed by angular ears upon which the lower edge of a plate is adapted to rest. The plate is applied by first inserting its upper edge beneath the upper strip 13 as far as the abutments 19 and then lowering it until its bottom edge rests upon the brackets 18. The supporting-arms 15 of the strips are so arranged as to prevent lateral movement of the plate by engagement with its side edges, or to support its weight in case the camera is turned upon its side for exposure.

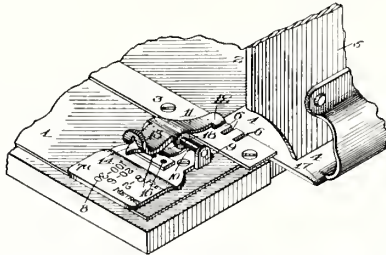
The back is provided with the usual inspection-opening 20 of colored transparent material, but, as the useless entrance of even non-actinic rays should be prevented at all times, and particularly in the present construction, where the unbacked plate is closely adjacent to the back, a movable, opaque closure 21 is provided.

933,640. BLUE-PRINT WASHER. HENRY C. GAWLER, Chicago, Ill.

A commercial apparatus for washing prints which will wet the printed side of the paper only.

933,713. FOCUSING-DEVICE. ROBERT KROEDEL, Assignor to Eastman Kodak Co., Rochester, N. Y.

Through the medium of this device the relatively movable parts of the construction that enter into the focusing-operation may be quickly and accurately positioned for ob-



jects at various distances and, at the same time, automatically locked in a predetermined relation. As the focusing-device is set before the camera-front is extended for an exposure, the portion 12 of the stop is in the path of the carriage 4 and must be lifted before the notches 7 on the carriage, corresponding in relative position to the figures on the focusing-scale, come into register. To accomplish this automatically a cam 17 is provided on the forward end of the carriage which temporarily displaces the stop against the tension of the spring 18 until the forward portion of the carriage has passed under it, whereupon the stop snaps into the notch and locks the carriage against a movement in either direction, so that there need be no other provision made for locking the front on the bed, such as clamping-members on the carriage, as are now commonly employed.

Sept. 14, 1909

934,242. KINETOGRAPH FEED-MECHANISM. CHARLES URBAN, London, England.

A simple mechanism which enables the feed-movements to be effected at very high speed with great accuracy and with a minimum of vibration.

934,331. PHOTOGRAPHIC WASHING-BOX. NATHANIEL C. MERRILL, New York City.

The chief advantage of this box lies in the fact that the water in entering passes to the compartment at the bottom, from whence it flows upward into the box proper through perforations provided. These are arranged in rows between the plates, so that fresh water is constantly brought into direct contact with the plates. The outlets are at the top of the box, and a wire rack in which the plates are held is removable for final drying of the negatives.

933,801. PHOTOGRAPHIC CAMERA-MECHANISM. WM. VERBECK, Manlius, N. Y.

This panoramic camera-mechanism will expose successive portions of the surface of the sensitive plate at a substantially uniform rate of speed and impart movement to the camera proportionally to the focal length of the lens. The form of support is such that the camera may be set into

position without interfering with the operating-mechanism, and may be tilted so as to take panoramic pictures of objects above or below the plane of the instrument. An elongated box 1 is supported on a base 7 by the pivot 6, and designed to hold the plate-holder 13. Around the rollers 2 and 2a at each end of the box passes a flexible curtain 3, the ends of which are joined to the plate 11, having a slot through which the dry-plate 13 is exposed. To this plate is attached the bellows 9, carrying the lens 10. A suitably-governed motor 4 revolves the curtain 3 in the direction indicated by the arrow B, and also by means of beveled gears turns the shaft 5 and with it the traction-wheel 8 so that the camera-box is angularly moved around the pivot 6 as indicated by the arrow C. The wheel 8 is the same diameter as the drum 2, and is adjusted to a position on the shaft 5 equal in distance from the pivot 6 to the distance from the plate 13 to the lens 10; that is, the focal length. Thus, the path traversed by the traction-wheel 8 will equal the length of

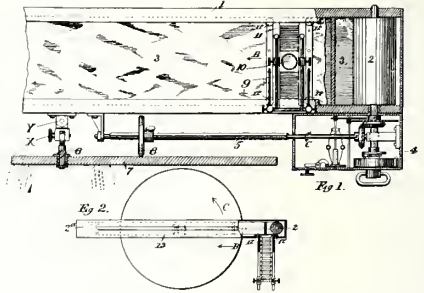


plate exposed, and images projected upon the sensitized plate will, therefore, remain stationary upon the surface of the plate. The traction-wheel is made to travel a circular path the radius of which is equal to the distance between the plate and the center of the lens. The adjustments are easily made by scales placed on the rods supporting the end of the bellows, and also on the shaft 5. Figure 1 is an elevation; figure 2, a top-plan view.

Sept. 21, 1909

934,579. DEFORMED COLLECTIVE LENS. RUDOLF STRAUBEL and MORITZ VON ROHR, Assignors to the firm of Carl Zeiss, Jena, Germany.

A bi-convex collective lens of large relative aperture with one deformed surface, so that the spherical correction is almost perfect.

934,581. PHOTOGRAPHIC SHUTTER. JOHN E. THORNTON, Manchester, England.

This device is of the single-roller-blind type arranged to move in two directions to expose the lens, first in one direction and then in the reverse, in order that it may be unnecessary to cover the lens and sensitive plate before setting the shutter for another exposure. This form of shutter is, therefore, termed a self-capping shutter.

934,894. MOTION-PICTURE CAMERA. OSCAR B. DEPUE, Chicago, Ill.

This invention provides for substantially uniform exposure, although the rate at which the series of pictures are taken varies materially, and also practically eliminates static fogging, which is a serious evil, especially in winter.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions are solicited for publication

Awards at the Dresden Photographic Exposition

PROFESSIONAL PHOTOGRAPHERS

STATE MEDAL

(Awarded by the Kingdom of Saxony)

Grainer, Franz, Munich.
Müller, Ernst, Dresden.
Ruf, Theodor, Freiburg, Baden.

MUNICIPAL MEDAL

(Awarded by the City of Dresden)

Lützel Brothers, Munich.
Schensky, F., Heligoland.
Smith, Frank Eugene, Munich.

GOLD MEDAL CERTIFICATE

Boer, Adrian, Baarn, Holland.
Bradley, A. F., New York.
Clark, Frank Scott, Detroit, Mich.
Core, E. B., New York.
Debschitz-Kunowski, Wanda von, Munich.
MacDonald, Pirie, New York.
Doty, E. E., Belding, Mich.
Fischer, Max, Dresden.
Clauer, Max, Oppeln.
Goldensky, Elias, Philadelphia, Penn.
Grienwaldt, August, Bremen.
Hilsdorf, I., Bingen.
Hutchinson, Eugene R., Chicago, Ill.
Kasebier, Gertrude, New York.
Lichtenberg, Emil, Osnabrück.
Ludwig, Stephanie, Munich.
Middendorp, E., Hilversum, Holland.
Schweizerischer Photographen-Verein (Kollaktiv-Ausstellung).
Strauss, J. C., St. Louis, Mo.
Weis, Wenzel, Vienna.

SILVER MEDAL CERTIFICATE

Aurig, James, Blasewitz-Dresden.
Baehr, Hermann, Dresden.
Bieber, E., Berlin.
Bimberg, Rudolf, Vienna.
van Bommel, Munich.
Bowersox, A. L., Dayton, O.
Burger, W. J., Vienna.
Clausing, P., Jr., Haarlem, Holland.
Claus, Ferdinand, Landau.
Dooner, Richard T., Philadelphia, Penn.
Edmondson, George M., Cleveland, O.
Elliot, I. Mitchell, Germantown, Penn.
Ellis, William Shevell, Philadelphia, Penn.
Ette, Fritz, Stettin.
Feilner, Anna, Oldenburg.
Frank, Julius, Lilienthal.
Garro, J. H., Boston, Mass.

Geldmacher, Martha, Hannover.
Gottheil, Albert, Danzig.
Hahn, Hugo, Vienna.
Hamnquist, Herm., Stockholm.
Hecker, Elisabeth, Munich.
Held, Louis, Weimer.
Heller, Konrad, Vienna.
Hoyt, Dudley, New York.
Huysen, J., Amsterdam.
Janvier, Meredith, Baltimore, Md.
Jobst, Rudolf, Vienna.
König, Wilh., Reichenberg.
Kosel, Hermann Cl., Vienna.
Krebs, Heinrich, Neustadt a. H.
Leyenaar, C., Rotterdam.
Lichtenberg, Rudolf, Osnabrück.
Meiner, Joh., Zürich.
Mock, J. E., Rochester, N. Y.
Möhlen, Alexander, Hannover.
Möller, Hch., Copenhagen.
Newland, Peter, Copenhagen.
Otto, Paris.
Pieperhoff, A., Leipzig.
Pierce, H. H., Boston, Mass.
Pietzner, Carl, Vienna.
Phillips, Ryland W., Philadelphia, Penn.
Proctor, A. T., Huntington, W. Va.
Pundsack, Chr., Bremen.
Rahmn, A. W., Malmö
Reichelt, Elfriede, Breslau.
Schervee, Hermann, Worcester, Mass.
Schroer, Amalie Eva, Hamburg.
Schweyda, Hans, Breslau.
Stein, Simon, Milwaukee, Wis.
Tollens, H. J., Dordrecht.
Verschuur, C., Hilversum, Holland.
Wiehr, Bruno, Dresden.
Wolleschack, E., Naumburg, a. S.
Zweers, B., Haarlem.

AMATEUR PHOTOGRAPHY

(England and America)

Keighley, Alex., Steeton, England.
Benington, Walter, London.
Cochrane, Archibald, Glasgow.
*Hoppé, E. O., London.
Johnston, J. Dudley, Liverpool.
Blake, A. H., London.
Cadby, Will, Kent, England.
Craigie, Reginald, London.
Evans, Frederick H., London.
Morton, Cavendish, London.
Warburg, Agnes B., London.
Job, Charles, Hove, England.
Mummary, J. C. S., London.
Richards, J. Gruwys, Bournville.
Stümmons, H. Y., Camberly.

Warburg, J. C., London.
 Mortimer, F. J., London.
Berger, Henry, Jr., Portland, Ore.
**Field, J. H., Berlin, Wis.*
Keller, G. Edwin, Buffalo, N. Y.
Lindburg, F. Augustin, Buffalo, N. Y.
Man, Gertrude E., Minneapolis, Minn.
Porterfield, W. H., Buffalo, N. Y.
Sides, Edward B., Buffalo, N. Y.
Sleeth, R. L., Jr., Wilkinsburg, Penn.
Thibaudeau, Augustus, Buffalo, N. Y.

* Professional photographer.

The Right Way

As we were engrossed in examining the pictures at the London Salon a venerable, distinguished-looking gentleman approached us and politely inquired if we were a member of the Selection Committee. After replying in the negative, we told him that we should be glad to fetch him one of these officials, which we did. To him, Mr. A., the patriarch unbosomed himself, gently complaining that his contributions — examples of excellent, but quite conventional, portraiture and, as such, unsurpassed in the United Kingdom for nearly half a century — had been rejected, whereas “those queer-looking things” — here he pointed to a group of impressionistic portraits hanging on the wall near by, at the same time producing from his inside coat-pocket several cabinet-portraits of his firm’s make — had been accepted. The aforesaid committee-man, with commendable tact as well as deference due old age, began to expatiate on the new photography, to which explanation the representative of the old-fashioned school listened with polite attention. Soon, however, he shook his head and showed other signs of disapproval; but the loyal exponent of modern portraiture continued to expound his theories. Now and then he mopped his brow with a feverish hand, for the strain had begun to tell on him, and, with a gasp, he motioned a passing brother-member of the committee to come to his aid. The two joined forces, exhausting their powers of persuasive eloquence in the hope of convincing the aged artist — Mr. William Downey, the celebrated London photographer of royalty and artist-celebrities — but their efforts were unavailing. The struggle had lasted over half an hour, during which time not a loud or angry word had been uttered on either side. The younger men had displayed rare patience and an attitude of courtesy and respect greatly to be admired. When it was evident that neither of the contending parties had gained an advantage they exchanged a few polite words of regret and separated like — gentlemen.

One shudders to contemplate the fate of the aged Mr. Downey had he ventured into a similar argument with a certain champion of advanced photography.

The Photo-Secession in London

COMMENTING on the complete absence of pictures by the Photo-Secession at the London Sa-

lon, recently, an English visitor inquired of an American acquaintance what the leaders of the New York coterie planned to do regarding future representation in England. Why this present aloofness?

A. A.— Oh, they, presumably, consider it a good advertisement. They are not asleep.

E. V.— Then you think they have something “up their sleeve,” as you Americans say?

A. A.— Undoubtedly. Wait and see.

E. V.— Have they influential friends in America?

A. A.— Yes. Besides, their leader controls — I mean, the pages of the entire New York press are at his disposal. He enjoys the exclusive support of Ciffin and Rood.

E. V.— Who are these men? We do not know them.

A. A.— They appear to be the leading American art-critics, and to hold the fate of an artist in the hollow of their hands.

Great astonishment.

The Women’s Federation

ENTHUSIASM regarding this new section of the P. A. of A., created at the Rochester Convention, seems to be very great; and well it may be, as this is the first important organized movement of women in photography. The aims and purposes of the Federation are well set forth in a general way by the following statements made by the officers:

The Women’s Federation of the P. A. of A. is destined, we hope, greatly to further the interest and aims of the women in our profession. The benefit derived from the exchange of prints last year warrants the continuance of the arrangement as an important part of the season’s program, the members pledging themselves to send on to the next member, after a stated interval, the print they have themselves in turn received. Coöperation in this “Circle” is optional, but the interchange of ideas and technic is valuable. Observation can be cultivated, ambition stimulated, by familiarity with the art and originality of our fellow-workers. We must assist individually to draw our federation into an organic whole, alive and vital in its every part.

MARY CARNELL,

President Women’s Section, P. A. of A.

1314 Chestnut St., Philadelphia, Penn.

The purpose of our organization is by coöperation to strengthen and develop the artistic, ethical and business side of our work; to demonstrate practically the value of exhibitions thoughtfully conducted, as a stimulus to study and effort; to create opportunities for mutual criticisms and exchange of thought along these lines; to encourage other women in our profession.

GERTRUDE KÄSEBIER,

Chairman of Eastern Section,

315 Fifth Ave., New York City.

While woman’s place in our profession is so thoroughly established and so universally accepted as an accomplished fact that it needs no

LONDON LETTER

By E. O. HOPPÉ, F. R. P. S.

THE LONDON SALON

MR. WILFRED A. FRENCH arrived in London just three days before the opening of the London Salon, which is organized every year by the members of that select and charmed circle, The Linked Ring. He was invited to be present at the private view, which takes the form of a stylish five-o'clock tea, where one meets friends and acquaintances never or seldom seen in the course of a year, and where the events of the last twelve months are freely discussed. A quite unexpected feature, and one which caused general delight, was the radiant, cloudless sky which, only on the day of this important occasion, vouchsafed its appearance, whereas, with this single exception, the weather had been dark and rainy the entire week.

It has been a very interesting gathering this year, including workers whose names have been household words in the photographic world for many years. There was John H. Anderson, the equally gifted writer and pictorialist; Malcolm Arbuthnot, always one of the most-discussed contributors to the walls of the "salon;" Walter Benington, perhaps the best gum-worker in this country; A. H. Blake, who has not sent this year either to the "Royal" or the "Salon," and whose absence is much deplored; Mrs. Cadby of "Cat" and "Spiderweb" fame; Reginald Craigie, the indefatigable honorable secretary of this exhibition for many years; the great "little" Frederick H. Evans, that pillar of strength to British pictorial photography. There were Charles Job and F. J. Mortimer, trying to explain to old Mr. Downey, whose claim it is to have photographed more royal personages in his lifetime than a dozen of photographers taken together, that — But I missed a specimen of one class. . . . I could not discover the self-styled "photographic artist" — that individual to whom the shadow seems to appeal more than the substance. Can one not frequently take it for granted that there would be found in the work of his studio a predominance of the former part of the title and an absence of the latter, or, in other words, very much photographv and very little art?

THE ROYAL EXHIBITION

When we try to consider the show at the New Gallery we find an altogether different state of affairs. There is here a very drastic judging, and hardly one in ten of the pictures sent in is accepted; but, at the same time, the members of the Selecting Committee take very little of the room to themselves, and there are over two hundred places to be competed for by the general body of English photographers. As far as one can make out from the catalog, the seven members of the Selecting Committee at this show

separate section of the P. A. of A. to gain recognition, it is certain that great good can come from this movement.

Those of us who have exhibited prints in the past have asked no favors because we were women, nor hesitated to exhibit because our work was made a part of the general display. There is no doubt, however, that if at the next convention the Woman's Section makes a separate display, it will attract much greater attention because it *is* separate, thus calling specific attention to the fact that it is the work of women, and so offering a comparison.

In entering into such a movement it is desirable that our exhibition be as complete and representative as possible. Therefore, we are asking you to begin *now* to lay aside negatives which you consider worthy, and that you continue to do this until next May. Then compare and cull these negatives till you are *sure* you have selected the *best* of them, and send three prints suitably framed for display.

We ask you to do this for the honor of the women photographers of America.

BELLE JOHNSON, *Vice-President*,
Monroe City, Mo.

To create a congenial feeling among the women of our great organization, and to give each an opportunity to advance. It will also give us prestige among our fellow-workmen as well as with our customers — an incentive to be the best.

IOLA W. WHITE,
Chairman Western Section,
Kansas City, Mo.

As members of the P. A. of A. we should feel an individual responsibility in being co-workers and contributors.

We do not consent to enjoy its privileges nor accept recognition as a mere courtesy. Our aim is to be fit and capable, and we stand on our own merits.

This should be an incentive to every woman photographer to keep pace with the progress of our profession, hence we ask the coöperation of all earnest women workers. There is an abundance of good material to be enlisted.

KATHERINE JAMESON,
Chairman Middle Section,
Pittsburg, Penn.

The benefit each one of us may expect to derive in coöperating with other women of our profession is obvious, as we can make more progress by interchange of work and thought.

We have made the membership fee fifty cents for the year, to cover postage, stationery, printing, or incidental expenses. This amount can be sent to me, with your name and address. Also kindly state whether you wish to join the "Circle" or simply become a member. Shall be most glad to give any further information.

M. ESTELLE JENKINS,
Secretary and Treasurer,
432 N. Park Ave., "Austin Station," Chicago, Ill.

hung only seven of their own pictures — an average of one apiece — and, as a matter of fact, five out of the seven abstained from exhibiting at all, and amongst these were some of those whose work has been prominent on the walls of the exhibition in former years. There will be found a certain amount of American and foreign work and a thoroughly representative number of good English pictures.

Certainly the visitor cannot fail to be impressed this year with the lighter and daintier character of the walls. There are about one hundred fewer pictures, and the heavy frames, which in years past have overweighted the walls, are all contained this year in a section of one wall, so that there is a vast preponderance of the passepartout and narrow-moulded frame. It is understood that the Royal generally receives about three thousand entries, so that there must have been a vigorous selection to reduce the pictures to their present manageable number. If there are few outstanding pictures at the Royal it is because the standard of acceptance is the highest yet enforced, and the results upon the walls the best we have seen there. The walls are more broken up by bands of white than formerly, and the pictures arranged in groups according to character and framing. Old friends are in evidence, such as C. Wille, in his delightful portraits; G. W. Miller, of Chislehurst, with a fine gum-print; Dan Dunlop and E. T. Holding; while Alex. Keighley appears upon the walls of this exhibition, the first time in many years.

THE D. O. HILL PICTURES AT THE SALON

The greatest attraction of the present Salon is the fine group of pictures by D. O. Hill, numbering twenty-eight frames and comprising some of his best work. It will be remembered that D. O. Hill was an artist who, between the years 1844 and 1847, used photography to help him in his portrait-painting of the celebrities of his day. Truly, the man behind the camera being an artist, little else matters, and the results will be pictorial however great the technical difficulties that the process may put in the way. But how is it that after all the talk about up-to-date photography and the vaporings of the Photo-Secession none can beat the results attained in 1844? I have referred to these pictures at length in my notice on the Salon, printed elsewhere in this issue.

THE R. P. S. AT 35, RUSSELL SQUARE

The new house of the R. P. S. is now nearly complete in its arrangements and, with the exception of the library, all the departments are in full swing. Mr. Arthur Marshall, of Nottingham, is to start the ball rolling after the exhibition is over, with a one-man-show of his work, which, I am sure, will be a pleasure to see. Mr. Marshall's record is one of persistent belief in the high possibilities of pictorial photography, without any pandering to the self-advertising cranks which have brought so much dishonor to it of late years.

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: GEORGE W. STEVENS, Toledo Museum of Art, Toledo, O.

Vice-President: JOHN F. JONES, 934 Ash St., Toledo, O.

Secretary: C. C. TAYLOR, 3236 Cambridge Ave., Toledo, O.

Treasurer: GEORGE W. BEATTY, 1629 Nicholas Bldg., Toledo, O.

Historian: WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

BELOW are given the names of the gentlemen who will compose the jury to judge the entries for the Sixth American Salon. A careful study of the list will reveal men who have helped to make art-history; who, through their natural ability, hard study and consistent work, have added, in no small degree, to the riches of the artistic sense, and who have always elevated art and have made its study popular and appreciable. They are artists who will do much to elevate the Sixth Salon: make that event historical, as well as give it the dignity it deserves. Their selection was the result of much thought, as it was felt that a jury of breadth, of sound art-principles and keen faculties, was needed, and the present officers of the Federation are joyous in what they feel to be a jury whose decisions will meet with popular approval. Each print submitted for the Sixth Salon will be placed before the jury, and each print will be judged solely on its artistic qualities and its individual merit as a picture. This surely will appeal to artistic workers as sound business sense, as well as make the Sixth Salon an artistic triumph. Entries are pouring in in great numbers, so there will not lack for entries.

JURY OF THE SIXTH AMERICAN SALON

Wm. Henry Fox, Director Herron Art Institute of Indianapolis; Secretary Department of Fine Art, St. Louis Exposition.

A. H. Griffith, Director Museum of Art of Detroit; a frequent lecturer before photographic societies on art-topics; Honorary Member Photographers' Association of America.

John C. Johansen, pupil of Whistler; exhibitor Paris Salon; awarded medal, St. Louis Exposition, 1904; medal, Society of Chicago Artists, 1904; Prize Purchase, Chicago Municipal Art League, 1903; awarded Young Fortnightly Prize, 1903.

Edmund H. Osthaus, painter of landscape and animals; studied at Royal Academy, Duesseldorf; pupil of Christian Kroener; exhibitor, American Water-Color Society; member of Society of Western Artists.

George W. Stevens, Director Toledo Museum of Art; member of Society of Western Artists.

WITH THE TRADE

Berlin Exposition 1910

PARTICULARS of this event, to be held in Germany from May to July next, have already appeared in the September and October issues of this magazine. At the head of the exposition are representative business men of the United States and Germany, and the conditions governing the enterprise have been investigated and approved by the Bureau of Manufactures at Washington, so the utmost confidence may be had in the management.

The central location of the city of Berlin, not only as the capital of the German Empire, but also with respect to a great part of northern, central and eastern Europe, assures a rare opportunity for American products abroad, and for promoting the export trade of the United States at comparatively small expense. As the exposition is to be confined strictly to American products, it becomes a matter of national pride to have the exhibits thoroughly comprehensive and of exceptional merit, so that the exposition may serve to strengthen the prestige of American industries abroad. We hope, therefore, that our advertisers may, for their own benefit, as well as for our national prestige in photographic matters, take an intense interest in this coming event and give it their hearty support. The committee, 50 Church St., New York City, Max Vieweger, Manager, is no doubt prepared to answer all inquiries, but Mr. John M. Carson, Chief of the Bureau of Manufactures, Washington, D. C., will be glad to give further information whenever it is within his power.

Distinctive Backgrounds

PROFESSIONALS, and amateurs too, for that matter, who desire to infuse tone and individuality into their portraits by an easy and ingenious method should familiarize themselves with the products of the Print-in-Ground Co., 195 Jay St., Schenectady, N. Y., which are described in an advertisement elsewhere. The backgrounds are in the form of rubber stamps, which are inked and an impression made on the glass side of the negative.

New Goerz Cameras

A NEW Goerz catalog is ready for distribution, and may be had by mentioning PHOTO-ERA and addressing the C. P. Goerz American Optical Co., 79 East 130th St., New York City. Many new things of interest to every camerist are described, particularly several new cameras, including the Vest Pocket Tenax, the Regular Tenax and the New Folding Reflex. These instruments have already become so popular in Europe that many of them were seen by the editor while abroad the past summer.

The Kodak Company in England

THE headquarters for the Kodak Company in Great Britain is No. 56, Clerkenwell Road, London. We had occasion to call there, and found this vast establishment a veritable beehive. There is no question that the Kodak Company does the largest photographic business in the United Kingdom. Its influence on the continent is also felt very strongly, and its branches in Berlin and Paris are extremely active, particularly during the past season, American visitors using kodaks literally overwhelming them with orders for supplies. They also do an extremely large business in developing and printing for kodakers touring Europe.

An English Anastigmat

AMONG the several pleasant calls made by us while in London, recently, was one on the firm of R. & J. Beck, 68 Cornhill, around the corner from the Royal Exchange. We shall long remember the agreeable and profitable conversation we had there with Mr. Conrad Beck, the senior member of the firm, who is a man well versed in optical matters. He has devoted his entire life to the study of lenses, as applied to the higher branches of photography, and was extremely enthusiastic in explaining the origin, manufacture and present high rank among anastigmatic lenses of the Isostigmat, the American agents of which are Williams, Brown & Earle, of Philadelphia. Among other things Mr. Beck clearly and convincingly explained the process of manufacture whereby his firm is enabled to sell the Isostigmat lens at a notably moderate price; also, the reasons why its performance surpasses that of other lenses of a similar type.

The Collins Sample Club

THE A. M. Collins Manufacturing Company is securing a harvest of new members for its Co-operative Sample Club. The payment of a single dollar entitles to the privileges of the club, which, we are told, are many and worth many times the nominal membership fee.

The beautiful box of fall samples which is sent at once to all new members is an education in itself, and is enthusiastically spoken of by all those that have seen it. Hundreds of commendatory letters are already on file, and they keep on coming.

We sincerely compliment the A. M. Collins Company for the splendid success of its up-to-date Co-operative Club, and for the fine line of mountings, novel and exquisitely exclusive, which is being sent to its members in so liberal a quantity and so attractive a fashion.

A "Tip" to the Wise Is Sufficient

WE have received, from the Defender Photo-Supply Co., of Rochester, N. Y., a copy of the Fourth Edition of the Defender "Tipster." Our recollection of previous editions of this little booklet is that it was a sort of amalgamated-direction-sheet for the Defender papers and plates. The Fourth Edition is pleasing by contrast. This little booklet is really a text-book of photography which is being given away to those who ask for it. It contains information regarding the latest things in printing and development, such as sepias in the first development as well as by the old re-development process; gold tones on gaslight paper; hints for the economical conduct of a studio; methods for making attractive borders, and a lot of other things which one ordinarily expects to pay money for learning about.

"Lens-Pointers"

WE are in receipt of a publication bearing the above title which we consider a step in the right direction. While primarily intended for the use of photographic dealers and salesmen, this booklet contains information which is valuable to the users of lenses as well. Anything which tends to disseminate information should be welcome, hence our kindly reception of "Lens-Pointers." The principal value of the booklet lies in the brief, plain definitions of such terms as "definition," "speed," "light-transmitting power," "rectilinearity" and "astigmatism"—all of which should be perfectly clear in the minds of those dealing in or using photographic lenses. A copy of this welcome little treatise will be mailed, free, to any one interested, by the Bausch & Lomb Optical Co., of Rochester, N. Y.

Samples of Kruxo Paper

NOT every day does one have an opportunity to try the different grades of a high-grade developing-paper at less than one third of the regular price. Such is the offer of the Kilborn Photo-Paper Co., Cedar Rapids, Ia., made in the ad-

vertising-pages of this magazine. Our readers will do well to look it up and give Kruxo paper a trial at once, as the offer holds good for one month only. If you mention PHOTO-ERA, a valuable, 48-page booklet about developing-papers will be included free.

Slowly Progressive London

THE visitor to London should not fail to walk up Old Bond Street and its continuation, New Bond Street, which terminates at Oxford Street. Here are located the finest shops in the city, and, in consequence, rents are simply enormous. The day before visiting the opening exhibition of the Salon we sauntered up this celebrated business-street, beginning at Piccadilly. While noting the numerous tasteful displays, each side of the street, we did not miss the pictorial exhibits of professional photographers at the street-entrance of their studios. We inspected them, one by one, and there were many of them—the leading London professionals (not including, of course, the artists *par excellence*, viz., Furlay Lewis, E. O. Hoppé, Frederick Hollyer and Walter Barnett, who are located in the residential sections of the city). We were curious to see how many, if any, pictures we should like to take home with us as souvenirs of the kind of professional photography which still predominates in the good old city of London—portraits in which both lighting and pose are monotonously conventional and without interest—but *not a single picture* appealed to us. Nevertheless, the enlightened and appreciative class is loyally supporting the true artists of the camera, whose names we have quoted, and, as all of these are doing a flourishing and lucrative business, there is hope that their number will increase; but it will be many years, probably, before it is even doubled. Thus, there is a larger proportion of professional photographers of the advanced school in the United States than in England; but the latter country, nevertheless, can claim more amateur photographers of high-class artistic ability.

PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

<i>Society or Title</i>	<i>Date</i>	<i>Entries Close</i>	<i>Particulars of</i>
Boston Camera Club Boston, Mass.		Nov. 1	John Thurston, Sec'y, 50 Bromfield St., Boston, Mass.
Photographic Salon London, England	Sept. 10 to Oct. 23	Aug. 26	
Royal Photographic Society London, England	Sept. 23 to Oct. 30		
Sixth American Photographic Salon Toledo, O.		Oct. 1	C. C. Taylor, Sec'y, 3236 Cambridge Ave., Toledo, O.
Worcester Art Museum Worcester, Mass.	Oct. 30 to Nov. 29	Oct. 19	Phillip J. Grentner, Director, Worcester, Mass.

PHOTO-ERA

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WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return postage is enclosed.

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THE DUET
J. E. MOCK



PHOTO-ERA

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Vol. XXIII

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The R. P. S. Exhibition at London

E. O. HOPPÉ, F. R. P. S.

THERE is no doubt that this exhibition, the fifty-fourth held by the society, has attracted a good deal of attention this year, owing to the fact that those who for so long have carried on the duties of the Organizing-Committee have this year been replaced by new members. "New men — new manners"—hence changes of a more or less important nature were expected. Well, the changes were not great, but what there were seem to have been on the right side. There was a noticeable lightness and daintiness about the walls of the exhibition, owing to the small number of dark, somber surroundings and the prevalence of the narrow moulding and the passepartout. I fancy, too, that the pictures — if I remember last year's show aright — were more broken up into groups and separated from each other by spaces edged with tape. It was remarked by many, last year, that the Hanging-Committee had been inclined to be over-generous in accepting prints; so I suppose most people will applaud the present committee for having been more drastic in its methods and for having excluded one hundred more pictures than last year, making the number upon the walls just over two hundred instead of just over three hundred. It is possible to get a show of very fair quality (if the number be thus restricted) out of the five thousand that are generally submitted to the R. P. S.; but if it were possible, without losing clients, to make a further reduction in numbers—say to 140 or 160—the exhibition would have had everything to gain in quality by such a proceeding. The spreading of a velarium, which was a new feature at the Royal, pleasantly tempered the light without reducing it too much. Probably the effect would have been still better if a space had been left between the wall and the velarium, so that the light could have been admitted to shine directly upon the pictures.

The pictorial section started off with a large head — a portrait of some quality, though not very interesting, by Moffat. At any rate it has character and the face is not over-retouched. Peter Orr, in "A City-Scene," has a picture good of its kind and difficult to secure with proper concentration of interest. A fine thing meets us in "The Life-Class" by Louis Fleckenstein. It

is both new in material and strong in presentation, and the interest is well centered. E. G. Boon pursues his own particular theme and rings the changes on sunlight-effects. His "Pergola" is not a sunlight effect, and, though a little fidgety, was full of atmosphere. His sunlight-study, "Arranging the Flowers," was full of light and brightness, but the figures gave quite a crowded feeling and were, if anything, too evenly balanced. Bertram Cox showed a good picture of St. James', Lincoln, in which the concentration of light on the church-tower is well managed. Kimber had one of his characteristic interiors with strong lighting in "A Gleam of Sunshine." Though telling in its dark surroundings, it exhibited absolutely no hardness about the high-lights.

Geo. W. Miller's work is always worth seeking out; in a quiet and unostentatious way he is becoming a power by his mastery of the gum-process, and his "Wood Magic" merited careful study. There was a delightful feeling of the beauty and mystery of the woodlands in this picture.

E. T. Holding was not so good this year as last. He had nothing so fine as those decorative studies that then emphasized his reputation. In "The Lesson" he showed much of his old-time power, but it was felt that the masses were a little even and the position of the child's knee awkward.

To my mind Miss M. Schönberg, of Dresden, scores as much as any one in this exhibition. She had three fine portraits full of power and character. They were printed on Japanese paper and framed to advantage. Her nude was one of the best I have seen for years. There is reticence and mystery, along with fine modeling, in the back, and beautiful passages of light and shade. It is to be hoped that we shall see more of Miss Schönberg's work in this country in the future.

The Buffalo Pictorialists showed some of their fine pictures here, as well as at the Salon. Two portraits by Thibaudeau—large heads, closely framed—were full of character.

J. M. Whitehead has three pictures in this exhibition. His style is no doubt well known to Americans, for his beautiful work is universally admired. We over here are beginning to feel that he continues too long in exactly the same style. His pictures, year by year, continue all alike, except with a small difference in material. Perhaps some day he will vary his style and the photographic world will welcome the change. Yet, in spite of all, his work is too good to be omitted.

Gideon Clark, in "The Cornfield," struck a new note. He has hitherto done the larger landscape somewhat after the style of Hinton, but here we had a small conventional subject—some square fields, corn-shocks and a few trees. Yet the whole was a delightful design of unusual character, and this worker deserved great credit even to have noticed it, and still more to have had the courage to picture it and brave the jeers of those who have no eyes to see these simple things. I hope for more of this work from Mr. Clark.

John Franklin had a decidedly good panoramic subject in "Heaven's Chariots." It has often been done before, but this effort was really a very fair success. The cloud, fine in quality, did not overpower the subject, and the rain-

shower was true; while the huge panorama of country, that lay beneath it, was well suggested without being too prominent.

Thomas Wright had good tones of snow and atmosphere in "Winter's Grip." The frame killed the more delicate tones, but could not quite rob it of its truth of presentation.

Immediately above this picture hung one of the most striking in the gallery. It was technically full of faults, and had been ruthlessly cut into a dome-shape in the upper corners. Yet in spite of all its shortcomings it was, I was going to say, a human document, but I should rather say an equine document full of energy and painful presentation of fact. It was by N. Steadman, and was called "Hard Labor," representing a horse in the extreme effort to move too heavy a load. It should hang in the committee-room of some society devoted to the amelioration of animal-suffering. It should extract guineas from the pockets of the charitable with as much ease as does the experienced pickpocket.

M. T. Fleischer had in his "Japanese Landscape" one of the most successful pictures in the exhibition. Where the material, so like that used in the conventional Japanese landscape, was found is difficult to imagine. I have seen such only once, and that was when I looked down upon liquid clay, with its wooden troughs and sheds, of a brickfield. It is a fine piece of work.

Mortimer had several landscapes of an important character, better to my mind even than those he showed at the Salon — and that is saying much. His "Decorative Landscape" well deserved its name. It is very impressive and highly successful through the added note of design. The cloud is well modeled and the whole quite one of the best pictures in the gallery. There may have been those that thought that, because Mortimer's name has always been associated with the sea, he had no eye for anything else. The four pictures that he contributed to this show had not a sea-piece amongst them, and they were all equal to his high reputation.

J. Meredith had a fine sunshine picture representing a procession of white-clad female figures passing down a street. It is in true tone and brightness of its light and one of the best sunshine-effects that I remember to have seen. The name Meredith reminds one of Hollyer's small picture of the poet-novelist, which was considered one of the best character-sketches ever seen of Meredith. Close to it hung a picture, "The Bull-Fight," by Ernest Marriage, which came near being a very great thing. There was strength in the design, and the sweeping line of the balustrade was impressive; but the right moment for the figures had not been seized, and so they presented quite a muddled appearance, which detracted, somewhat, from the value of the whole composition.

N. H. Gyorgy had some fine work in this gallery. His "Village in Winter" was an effect of the setting sun on whitewashed houses. It certainly was a remarkable piece of color-work. Close to it hung another well-colored oil-picture — the largest in the exhibition. It was called "Writing to Her Sweetheart," by L. Loenzale, of Barcelona. So good was it that many people were loath to believe that it was not an oil-painting, doubting its photographic basis. The



BOY WITH AN APPLE
MRS. G. A. BARTON
R. P. S. EXHIBITION, LONDON



pose of the girl, her delightfully natural expression of interest in what she was doing, and the fitness of accessories combined to make a very attractive picture.

Mention should be made of C. Wille's powerful portraits in gum that hung on this wall. His portrait-work is well known, and his reputation will not have suffered from these fine examples. Up till now I remember no success by this worker in the domain of landscape; but here we had a colored gum-subject which deserved to rank with his portraits.

R. T. Dooner's "Symphony in White" calls for special attention, and so does C. Hemistead's sunny picture. Two of the color-pictures were fine in their way, when one considers the difficulty of the sea-subjects which the worker assumed; but the coloring did not appeal to me as true. Ward Muir had a small decorative subject in "Last Year's Leaves," which had the dainty design that one expects from this worker. C. Tilney appeared in a new character and, after having been represented in this year's Academy by a painting, got two photographs into this exhibition.

C. S. Ferguson had the only picture of its kind in the exhibition, but it was decidedly good. The "Trespasser" might easily have been missed, which would have been a loss, for it was not only quiet and reserved in treatment, but it had a decorative value which should have carried it far in the esteem of the initiated.

Mrs. G. A. Barton's "Boy with an Apple" is along the lines of her former well-known work. It is excellent in spacing, but one could wish more texture and greater softness in the high-lights.

There are two workers, one not yet mentioned, whose productions were of a high order of merit. I refer to Moffat and Keighley. Moffat's picture, "The Proclamation," was a serious work. It was an endeavor, and a successful one, to represent such a great national event as the proclamation of His present Majesty. It is at once apparent that, poorly done, such a picture would be but a snap-shot of a mass of heads, such as we are familiar with in pictures in the illustrated press; but, though one feels the presence of vast masses of people, they are not obtrusive, and the main themes are the herald with his proclamation and the ray of sunlight that suddenly lights up the scene. It was a distinguished impression of a great event and did the author the greatest credit.

Alex. Keighley exhibited in the Royal again for the first time in many years, and his work was therefore all the more welcome. He gave in one of his pictures, an Italian "Harvesting," a well-composed and harmonious picture free of any suspicion of excessive hand-work, which has sometimes been alleged against him "in the other place." There have been plenty of harvestings done, but few so good as this. His other subject, called "The Archway," is quiet and unobtrusive in character, but distinguished by dignity and breadth of treatment.

Taking the exhibition as a whole, I am bound to confess that it was an advance over 1908. The scientific work was more varied and interesting, and though the color-work was a failure, the pictorial section was decidedly stronger. No one would have believed, say five or six years ago, that the R. P. S. would get together such a collection of good things as were here shown. No doubt, as



“Where the rock is riven asunder,
and the Evil One has bridged the gulf”

HARRY WILD

R. P. S. EXHIBITION, LONDON





AN AWAKENING

EDITH L. WILLIS

R. P. S. EXHIBITION, LONDON

the word gets about that the selecting is more rigorous and the standard higher, more of the better men will think it worth while to come back to the Royal, and in time to come they may consider the honor of being hung there second only to the distinction of being represented on the Salon walls. It is most important that the R. P. S. should lead and mould the pictorial aspirations of the best workers, and this it seems now inclined to do. It will, I should hope, come to pass that the foremost American workers will regard the R. P. S. Exhibition as one of the yearly events for which they must specially prepare pictures, and we can assure them that, if they continue to send us the class of work that has been received this year from the Photo-Pictorialists of Buffalo, we shall welcome them warmly. It is, indeed, unfortunate that American photography should have been, so far and to a great extent, represented in England by only a one-sided and exclusive section of the American photographic world. Last year's Salon, at any rate, freed us from the undue influence of that body, and we shall increasingly expect the best American work to hang in our two great London exhibitions. The standard of the "Salon 1909" is a high one, indeed, and being admitted to its walls may rightly be considered the greatest distinction the photographic world can offer.

The R. P. S. of 1909 is reasonable and representative, and the honor of having had work accepted for it is worthy of the best efforts. When America knows this she will send us some of the best work which she is able to produce.

The Autochrome Plate in Its Relation to the Color-Theory of Young and Helmholtz

FRED D. MAISCH

ONE of the most interesting and far-reaching results of the introduction of the Autochrome plate by the indefatigable Brothers Lumière has been almost lost sight of. This wonderful photographic plate furnishes the best and most readily understood proof of the accuracy of the now generally accepted theory of color, which is, in part, "that practically all color-sensations can be produced by the mixing of three fundamental or so-called primary colors; viz., red, green and violet."

The lay mind now has a fairly accurate understanding of the meaning of the terms "negative" and "positive," as applied to photographic processes, and it would require but a very slight stretch of the imagination to substitute the word "complementary" for the word "negative." Speaking photographically, the two terms are almost synonymous. In the ordinary photographic negative black and white are reversed, which means nothing more than that white indicates the presence of all the rays of the spectrum; and black, either the entire absence of these rays or their absorption.

The Autochrome *negative* also shows the reversal of black and white, at the same time showing the negative or complement of every color present in the subject photographed: thus, if the subject is red the negative will show a green; and if blue, the negative will show a yellow, and *vice versa*.

Many people still adhere to the mistaken idea that when three primary or fundamental colors are spoken of the colors meant are red, yellow and blue. This is pardonable when we consider that proofs to the contrary have really been accessible only to the student in his laboratory, and the fact that with red, yellow and blue *pigments* almost every hue and tint of nature can be reproduced. For many centuries artists have mixed blue and yellow paints to obtain green. The mixture does give us the green impression; but, as Helmholtz long ago pointed out, it is *not* the *color* of the mixture, but it is the one color which is not freely absorbed either by the yellow or by the blue pigment. In other words, the yellow pigment absorbs the greater part of the blue, indigo and violet rays; the blue, the greater part of the red, orange and yellow. Green is the one color not freely absorbed, and it is therefore the impression received by the eye.

Wünsch in 1792 and Sir Thomas Young in 1802 adopted red, green and violet as the three fundamental colors of the visible spectrum, because they found that by mixing these three in varying proportions every tint of the spectrum could be produced or imitated, and also that the three acting together would produce white. Helmholtz proved that no mixture of the pure blue and the pure yellow of the spectrum would produce green, but that when properly balanced the impression was white. This was also found to be the case when mixing red and green-blue — the result was white.



A GAME OF MARBLES

LOUIS WEDEL

These colors are called complementary; others of the same class are orange and cyan-blue, green-yellow and violet, green and purple. The list could be prolonged indefinitely, as every possible tint must, in the nature of things, have its complement. It follows from this that white light can be produced not only by red, green and violet (the two extreme and the middle colors of the spectrum), but also by merely *two* properly-balanced intermediate colors. Before the introduction of Lumière's Autochrome plate such investigations were limited to the student having access to costly apparatus, and the knowledge gained could be imparted to only a limited number of people.

It is now possible to pursue such studies in the photographic laboratory, with much less labor, and the careful worker will have far more certain results. All that is necessary is to make an exposure according to the explicit directions furnished with the plates, reverse the negative into a positive with the chemicals furnished and compare the result with the original. Should the colors prove correct, then immediately duplicate the exposure on another plate, but develop the second plate only to the negative stage and fix it out in the usual way. This second plate will, of course, be a negative and will show the complements of the

colors in the positive. In this process correct exposure means correct colors; over-exposure gives pale colors, and under-exposure, dull colors. The same is true in making color-analyses with the spectrum. If the spectrum is impure, or stray white light enters the laboratory, the colors will be pale; and as this stray light is increased the intermediate colors will finally fade out, leaving only the three fundamental colors, red, green and violet. This result is exactly the same as an over-exposure on the Autochrome plate, which destroys the detail of the photographic image, permitting too much light to pass through. This light is made up of minute starch-grains dyed red, green and violet, which, acting jointly, produce, as we have seen above, the white impression. The destruction of the photographic detail begins, of course, in the thinnest part of the film, which, as will be seen later on, must lie behind the violet-colored grains, thus permitting a superabundance of violet rays to pass, the effect of which is to restore the original balance of the three sets of colored starch-grains.

Although the composition of the Autochrome plate is now fairly well known and understood, it will not be amiss to say a few words concerning it. As has been mentioned before, it is built on the theory of three fundamental or so-called primary colors. That it is also a complete corroboration of the theory of complementary colors may not have been the intention of the makers, but it is none the less perfect on that account. The preparation is about as follows: a mass of starch-grains averaging one-tenth of a millimeter in diameter is divided into three unequal lots. The smallest lot is dyed blue-violet, the next green and the largest red-orange. The three lots are then thoroughly mixed and spread over a glass plate which had previously been coated with a gum or varnish. The plate is then passed through a rolling-machine which presses the grains into a mosaic, at the same time feeding carbon dust into the space left between the circumferences of neighboring grains. After another varnishing the plate is ready to receive the photographic emulsion. It will be noticed that the colors chosen are slightly at variance with the fundamental colors determined by Wünsch and Young; but this is in some measure compensated for by the color-screen, which must be used in making an exposure. This orange-colored screen serves several purposes. It deepens the effect of the red-orange grains, bringing them in effect much nearer the red end of the spectrum; it raises the tone of the green, which is the most difficult color artists have to handle, and, lastly, subdues the actinic effect of the blue-violet grains. The latter result is well known to photographers in their use of orthochromatic plates. The plate is exposed in the camera with the glass side toward the lens. The image must, therefore, pass first through the layer of colored starch-grains before acting on the sensitive film.

It has been said that one of the severest tests of a plate intended to show color is its ability to reproduce black and white. These requirements are met completely. Black is particularly well rendered, having none of that harsh, flat appearance of the black in an ordinary photograph, but suggests instead almost illimitable depth — precisely what absence of light would mean. Its ability to reproduce white is perhaps best shown by stripping the photographic emulsion



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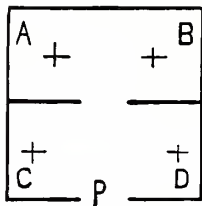


off the plate, when it will be seen that the underlying starch-grains have a slight pinkish but almost neutral tint. A granular appearance will also be noticed, caused more by the necessity of filling the spaces between the grains with carbon dust than by the grain color-units themselves.

It follows from this that the reproduction of a large, even white surface will not be satisfactory — but this is not a serious limitation, since white is really only a comparative quality. Therefore if the white surface, mentioned above, were surrounded with good color-contrasts the results would be a good white impression on the eye.

The following experiment, shown at the International Photographic Exhibition, held this summer at Dresden, and quoted from *The British Journal of Photography*, June 18, proves that the white impression depends largely upon its surroundings:

Difference Between Black and White. It is most difficult to define the difference between black and white. It is said that a body is white when it reflects the whole of the light, but this is not correct;



one and the same substance with the same illumination appears black or white, according to its surroundings.

Experiment: Midway between the peep-hole P and the back of the cabinet is placed a screen faced with a medium tint, with a central circular aperture in it. The back of the cabinet is somewhat feebly illuminated by lamps A and B, so that on looking into the peep-hole there is seen a white disc on a dark ground. On pressing the switch of lamps C and D, placed between the peep-hole and the midway screen, the hole itself appears perfectly black, while the screen looks white — a reversal of the previous conditions.

One criticism of the Autochrome plate which the writer, at first, thought was serious was that the plate was said to be incapable of reproducing the yellow of the spectrum. This criticism seemed to be justified when considering the impossibility of producing a good yellow except by mixing the red and green light of a pure spectrum. Red and green rotating disks and red and green glasses always produce a pale whitish yellow, never as brilliant as the yellow of the spectrum. The conclusion reached, however, is that the point raised is merely one of photographic technology. It has always been the practice, when photographing a white object, or a blue one, on an ordinary plate, to reduce the exposure in the camera very materially, because we knew these rays to be the most actinic. In the Autochrome plate we are still working with a photographic emulsion, but

under very different circumstances. Blue is not necessarily the most active color we have to deal with, because its excessive power has been greatly curtailed by the color-screen and the tricolor starch-grains and the criterion for correct exposure must be brilliancy of illumination irrespective of color. It follows, therefore, that the most active and penetrating ray from this standpoint must be the most vivid color of the spectrum, which is yellow. This being the case, the remedy for pale yellow is to reduce the exposure in the camera, and favor that color in all the other operations just as much as we favor and work for high-lights in ordinary photography. In general work it will be found necessary to reduce the exposure only when yellow is the predominating color, trusting to the developing-baths to build up the other colors to their proper strength. Such trust will very rarely be misplaced. As stated, correct colors are due, in the first instance, to correct exposure, but also, in no small degree, to the ability of the operator to recognize the color when it is correct and true. He must learn to what extent colors are influenced by the amount and quality of the light which falls on them. The artist in coloring lantern-slides makes this allowance, Slides which, when viewed on the screen, appear correctly colored will prove to be far too brilliant and almost garish in their color-scheme when viewed by the light of the sky. A blue-green cloth when taken into sunlight will show a decided yellowish green color, and any other color will undergo similar changes according to the amount and quality of the light by which it is viewed. In all shadows there is an abundance of blue and violet rays, while high-lights are just as decidedly yellowish in tint. The above changes were brought about by increasing the illumination; decreasing the amount of light will also not only change the tone or tint, but actually change the color. Two yellow glasses of the same tint will, when superimposed and viewed by transmitted light, show an orange color, and, as the number of glasses is increased, the color will gradually deepen until finally only red rays are transmitted.

It follows from the above that the light in which to view an Autochrome plate must be practically equal to the light which produced it. It is, of course, possible in picture-making to strike a happy medium which will permit of these changes just as much as an oil-painting does. But since light and color can in no sense be separable, absolutely correct conditions can be obtained only when the two light-conditions are equal.

It may be remarked, in passing, that the old axiom, "Expose for the shadows; let the high-lights take care of themselves," does not hold good for the Autochrome plate. We must remember that an artist in painting his picture directs the eye of the beholder to his chosen objective-point, either by drawing it in greater detail or by the selection of brighter colors. In a landscape it is the play of light which attracts the eye far more than the disposition of the shadows. The ordinary dry-plate, when under-exposed, gives harsh, black, meaningless shadows; with the Autochrome such shadows are inexcusable. The axiom must, therefore, be changed, and should read: "Expose for the high-lights; the shadows will take care of themselves."

(To be continued)

Diffusion of Focus in Enlargements

F. J. MORTIMER, F. R. P. S.

IT is proposed in the following note not to discuss the desirability of diffusion of focus as opposed to absolute sharpness when making enlargements, but to describe briefly the various methods by which diffusion can be obtained, assuming that in many cases it is required for the purposes of pictorial effect.

First, the negative. This may be either perfectly sharp in detail, or it may be blurred by reason of being out of focus, or by movement during exposure. In the last case, the production of an enlargement into which further diffusion is introduced by any of the means mentioned hereafter, or by printing on very rough paper, will be in the nature of a remedy for an existing defect.

The negative that is already out of focus can only be assisted, when making an enlargement, by careful focusing in the enlarger to get the sharpest possible image, and by regulating exposure to concentrate the lights and shadows, making masses where indefinite scattered detail existed before.

It is, however, when dealing with the sharp negative that the greatest amount of control can be exercised. With a perfectly sharp, clean negative almost any desired effect of diffusion can be introduced by manipulation in the enlarger.

Methods of securing a pleasing and soft effect by means of bolting-silk have been described and illustrated several times in these pages. Briefly, the procedure is to interpose a piece of fine open-mesh silk or bolting-cloth between the enlarging-lens and the bromide paper on which the enlargement is being made. The closer the silk is to the bromide paper the less the diffusion will be, while if it is placed in actual contact with the sensitive surface no diffusion at all results, but only the pattern or mesh of the fabric will be seen on the resulting print.

It should be noted that when the bolting-cloth is placed a considerable distance from the paper, and nearer the lens, not only will the diffusion be greater, but a general fogging of the print results.

It is also worth remembering that the interposed silk or cloth has the effect of breaking up and introducing light into the shadows of the subject that is being enlarged. Therefore very hard, or black-and-white, negatives that are to be enlarged will be greatly improved in quality when treated in this way.

Substitutes for bolting-silk have been frequently suggested, such as chiffon, tulle, muslin, and materials of a like nature. All may be used in the same manner — stretched on a light frame, larger than the enlargement, for convenience in handling — and the effects are approximately the same.

If the chiffon or tulle is used twofold or threefold and placed over the lens itself, a very pleasing variety of diffusion is produced. This was described in *The Amateur Photographer and Photographic News*. [See "The Crucible."]

Another form of diffusion that is extremely effective for large portrait-work is to make the enlargement with a single large-aperture uncorrected lens. An

ordinary landscape-lens, opened out to its full extent by removing the stops, serves perfectly. A better plan is to utilize the single flint combination of a portrait-lens. This enables the lens-flange to be used, and also the stops. Most portrait-lenses permit the removal of the front and back lenses, leaving the third glass in its place.

If this is screwed into the enlarger and a sharp image focused on the screen, by stopping down, say, to $f/11$, the first portion of the exposure can be given. The aperture is then gradually opened until the lens is at full aperture, say, $f/5$ or $f/4$, and the diffused image thus superimposed over the sharp image will produce an extremely pleasing and "round" result. In portraiture particularly will this added quality of modeling be appreciated.

For those who do not possess a portrait-lens a somewhat similar effect can be obtained by first focusing the image as sharply as possible with the full aperture. Then, with a movement of the focusing-screw, the image is put out of focus a little. If a smaller stop is now placed in the lens sharpness will be restored, and half of the exposure given.

The remainder of the exposure is then given at full aperture, and the out-of-focus image over the sharp image produces an amount of "roundness" that is generally a great improvement on the straightforward sharp enlargement.

The matter of exposure will, of course, be one for careful trial and adjustment, as it will be remembered that a few seconds at full aperture will probably be equal to half a minute or more with the smaller stop.

Yet another method, and one that calls for very careful attention, is the alteration of focus during exposure. The image is first focused sharply and part of the exposure given, say three-quarters. The enlarger or lens is then carefully racked forward a little, until the image is quite out of focus on the bromide paper. It is then racked back, past the sharp stage, until it is equally out of focus on the other side. If this to-and-fro movement is continued for the remainder of the exposure, an entirely different effect is obtained from any of those previously described.

It will be seen, however, in this last method, that as the enlarger (or lens) is racked back from the enlarging-easel the image increases in size all over, so as to overlap the previous image, and when it is racked forward the image decreases in size and comes inside the normal or sharp focus. It will also be found that this overlapping, or increasing and decreasing of the image, is more strongly marked at the margins than at the center — one spot, in fact, remaining fairly normal throughout. As this will be about the center of the picture, the resulting diffusion will be found to be one gradually increasing from the center of the picture, and is very suitable for many subjects in which the strongest point of interest is about this spot.—*The Amateur Photographer and Photographic News.*

To avoid criticism, do nothing, say nothing, be nothing

Improving Negatives of Uneven Density

PHIL M. RILEY

THE process of rehalogenization or rebromizing as a remedy for certain kinds of defective negatives is not a recent discovery. It was investigated a long time ago by Mr. J. McIntosh, of the Royal Photographic Society, and found to be a simple and satisfactory means of improving negatives which exhibit halation or areas of varying density due to uneven drying. Both of these defects are found quite frequently in the negatives of amateur photographers, and one hears remarked so often that the negatives are worthless because of these defects that there seems sufficient justification to recapitulate the features of this interesting process. It would seem that it is old enough to be new to most of the younger generation of photographers, at least.

Some degree of halation, however slight, is likely to occur in any negative unless double-coated or backed plates have been used; but it becomes objectionable only when there are very strong contrasts, such as interior views in which windows or doors are prominent. Negatives of this sort made on ordinary plates show a spreading of strong light from the light parts of the image into the adjoining dark parts, so that both are indistinct in outline, often giving a blotchy effect. It is a well-known fact that this is caused by reflection from the back of the plate. The light reflected from most objects in a view is absorbed by the sensitive emulsion, but intense light penetrates it and passes through into the glass behind. Part of it undoubtedly reaches the black partition of the plate-holder and is there absorbed, but much of it is reflected by the outer surface of the glass back into the emulsion. As a result of the thickness of the glass and its refractive power the light returns at a different angle from which it entered and in this way causes a spreading of the high-lights beyond their proper confines and gives portions of them almost a double exposure. This explains one of the reasons why so little halation is seen in film negatives.

The manner in which halation is caused is of the utmost importance in removing it, as will become apparent presently. As the light penetrates the sensitive film of a plate its action becomes weaker and weaker the nearer it approaches the glass. Visual proof of this fact is afforded by examining a plate which has been developed and is ready for fixing. At that stage its surface is black, while the back of the plate has not darkened to any great extent except in the high-lights. Thus the light-action is not uniform throughout the thickness of the emulsion, but is for the most part on the surface. So interested was Sir W. de W. Abney in this theory that he cut negatives into thin sections and made photomicrographs of them, the results demonstrating that the silver-deposit which forms the image decreases in density as it approaches the glass. Now visual inspection during development, and Abney's photo-micrographs as well, prove that the effect described is due to the weakening of light-action, and not to any

failure of the developer to penetrate the sensitive film. During development halation is more visible on the glass-side of the plate than the front, while Abney's enlarged sections of finished negatives show that the silver-deposit, due to halation, is denser near the glass and becomes less and less so as the front surface of the emulsion is approached, thus proving that the action of reflected light, which causes halation, begins at the back of the film and extends toward the front, becoming weaker as it proceeds.

All this goes to show the fallacy of the often-advised method of removing halation by rubbing with a chamois-skin dipped in alcohol. It would be necessary to remove most of the true image before the underlying halation could be reached. Such a course makes halation somewhat less apparent by removing density, but any great amount of rubbing is done usually at the expense of detail and with the possible danger of softening and damaging the film. Rehalogenization is the only safe, simple and effective method to pursue, and it seems to be equally effective in the removal of excessive density caused by uneven drying. Slow drying produces a negative of greater density than does drying within a normal duration of time; and when there is a marked change in the rapidity of drying, areas of different density are certain to result. These seem to be caused by the continued moisture in the film, and, as the moisture evaporates but slowly near the glass, the greater density caused by it seems to be there rather than at the surface. In this respect it is similar to the density of halation, and its removal may be effected by the same simple means.

Rehalogenization is the process of restoring a completed negative to nearly its original condition — before development. It is effected by treating the negative with a solution which will give back to the emulsion the halogen bromide, thus converting the black metallic silver of the image into creamy silver bromide. If a slow-working developer is then applied the image is converted again into metallic silver and, as such a developer penetrates the emulsion very gradually, the true image on the surface is developed before the halated portion below is affected to any appreciable degree, and the plate may be transferred to the fixing-bath in time to dissolve out the halated portion, consisting of unchanged silver bromide, while the true image, in metallic silver, remains as it was in the original negative.

The process is simplicity itself, requires only chemicals which are to be found in almost any dark-room and will greatly benefit all negatives impaired by the causes mentioned, however serious the trouble may be. All of the operations may be carried on in white light.

The negative may be treated at once after leaving the wash-water; but, if it has been dried, soaking in cold water for an hour or so is necessary. It is then immersed in a solution consisting of

Potassium bichromate	50	grains
Potassium bromide	25	“
Water to make	5	ounces



LOWN WATERS

R. P. S. EXHIBITION, LONDON

J. M. WHITEHEAD

In five minutes the solution is poured into a graduate containing twenty-five minims of nitric acid, stirred with a glass rod and then poured back onto the plate again. Immediately the metallic silver image is seen to begin to change into silver bromide. The time required to whiten the image through to the back of the plate should be noted and the plate allowed to remain in the solution twice as long. Have ready a saturated solution of alum, dilute a suitable quantity with an equal part of water and divide into three separate baths. Rinse the rehalogenized plate in water and immerse it for several minutes in each of these successive baths. If any yellowness from the bichromate then remains, immerse the plate in

Potassium metabisulphite $\frac{1}{4}$ ounce
 Water to make 5 ounces

After every suggestion of stain has been removed the plate is washed in running water for half an hour and then developed.

Any slow-working developer is suitable, pyro-soda restrained with one grain of potassium bromide to the ounce of developer being excellent. The formula adopted for ordinary development should be used. Slow action of the solution is necessary in order to determine just when to stop development, for upon this depends the success of the process. The glass-side of the negative, and especially the halated portion, which is prominent on the back of the plate during development, is watched carefully, and when the developing-action has reached the glass-side, but before it has begun to darken the halated portion to any great extent, the negative is removed to an ordinary one-to-four hypo fixing-bath. The tray containing the hypo-solution should be rocked for a minute or two to ensure even action, after which fixing, washing and drying may be conducted as usual. Care must be exercised not to stop development too soon and thus lose contrast in the image. A slight darkening of the halated portion seems to disappear in the fixing-bath. Should it happen that development is carried too far and the halation reappears, the whole process may be repeated, perhaps with better result the second time. This should be avoided, however, and care used, if it is attempted, to keep the various solutions at practically the same low temperature and thus avoid frilling.



Admiring Bad Pictures

WILLIAM HOWE DOWNES

AN art-critic should be very careful not to admire bad pictures. Perhaps it would be better to say that he may admire bad pictures as much as he likes, but he must be careful not to say anything about it. The only safe course is not to admire anything, at least not to excess. But how is one to know when a picture is bad? There are so few pictures in the world which are not bad in one way or another! Even the greatest geniuses were so

inconsiderate of the feelings of art-critics as to paint many bad pictures. By so doing they seem to have been intentionally laying a trap for the unsuspecting critic, since it is a generally recognized fact that the critic usually reserves all his warmest praises for the works of artists of established fame, and makes sure of the signature in the corner before he commits himself. Another reprehensible practice of the great painters, evidently intended for the confusion of critics, was their way of making so many bad pictures which had charm and interest and originality in them. This was a fiendish trick of theirs, which has been the undoing of many an innocent critic. The purpose is the more obvious, because we know that the very painters who are capable of the most faultless work are apt to be the ones who play this contemptible game. A very good line of policy for the art-critic who wishes to get the reputation of infallibility is to add some saving clauses of qualification to his eulogies, if he indulges in any eulogies. He may with perfect safety allow himself to say some rather enthusiastic and sympathetic things, once in a while, if he will only remember to add what they call in Congress a "rider." There is no picture in the world, it may be safely said, which is so flawless, so perfect, that there is nothing to be said in depreciation of it. Instances might be cited by the hundred. The wary critic is he who bears this in mind, and always remembers to trot out the qualifications which should follow his praises, thereby keeping open his line of retreat. Disillusionment is such a common experience — in regard to works of art, as well as other things — that the impulsive critic who burns his bridges behind him is likely to get into all sorts of trouble. The ghosts of his old loves rise up in later years, and make him ashamed. "Why, man, you once admired a Raphael! Ha! ha!" That critic is done for.

But, on the other hand, the cautious, politic, wary critic misses no end of fun, for he can never let himself go. If he ever comes across a picture which he really likes very much he is not able simply to enjoy it, as other people can and do, without questioning their own motives and analyzing their own emotions. He is obliged to ask himself whether, by this and that rule of the game, he ought to enjoy it. Of course, this takes all the bloom off the flower. It is a mental attitude that forbids enjoyment, shuts the windows on the view of broad and sunny prospects, promotes self-consciousness and narrows the sympathies. Not only the critic, but also his readers, are the losers. Far be it from us to take the position that a critic is an irresponsible person, or that it is possible for him to have too much knowledge. But there is a danger, often illustrated, of the critic being overweighted by his special knowledge, smothered by his own impedimenta, so that all the natural impulses of his soul are inhibited, and he becomes a machine — and a negative machine at that. Such a result of special knowledge is more pitiable than the condition of the opposite type of critic, who may be less fully equipped in an academic sense, but whose admirations and loves are controlled by processes more analagous to those of the creative artist, intuition and imagination often creating short-cuts for them to heights of expression not to be analyzed or even understood by the pedant.— *Boston Evening Transcript*.

EDITORIAL

The Sixth American Salon

THIS annual picture-display, fostered and conducted by the American Federation of Photographic Societies, is the only important collection of an international character which is accessible to the general public. If it does not fully meet the expectations of its projectors, it is because the support accorded it, from year to year, has not been uniformly efficient, although always conscientious and well meant. Even in larger organizations executive boards do not always realize the maximum hopes. The story of the American Salon is one of varying success, for the officers have not always developed the necessary energy, influence and tact. This year's Salon is characterized by an exhibit of unusually high artistic merit, and this happy result is due, very largely, to the prestige of the president, George W. Stevens, director of the Toledo Museum of Art. Being professionally identified with the fine arts — painting, sculpture, etc. — Mr. Stevens adopted the artists' standard, and even his jury consisted of art-educators and professional artists, all men of ability and accumulated experience. Small wonder, then, that this year's pictures excel those of previous years in respect to actual artistic worth. While the number of prints shown, this year, is relatively small, the circuit is the largest ever attained. Besides, the Salon will be on view in the principal art-museums of the country. The Federation is, indeed, to be congratulated.

For the Honor of the Craft

THE photographic journal which regards with complacency, or even sanctions, the moral laxity of the craft has outlived its usefulness. The time has come when the photographer must recognize the rights of his patrons. The high-minded practitioner knows instinctively that it is his duty, as a man and as a member of a civilized community, to take no unfair advantage of any person who has engaged him to make his picture. It is but an oral contract, to be sure, but it should be as binding as though written, signed and witnessed. The patron trusts the photographer and assumes that he will abide by the agreement and not exceed its limitations, which are implied, though not expressed. Can the photographer afford to abuse this confidence? Does he not violate a trust when he exhibits in the show-case on the street the portrait of a patron without his permission? Did it ever occur to him that a lady of refined sensibilities might object to her portrait being placed in company with those of an undesirable class in an album or folder and exhibited promiscuously by an unscrupulous ticket-agent? Or, worse still, is it a manly act on the photographer's part to deliver a print of a customer — that of a private individual — to any one, to the illustrated press in particular, without proper authority? What about

the highwaymen and the eavesdroppers of the camera, who were rebuked in a recent issue of this magazine? PHOTO-ERA has boldly declared its attitude on these questions, and, instead of patting the photographer on the back and applauding every wrong step he may take, it has the courage to reprove him. The right-minded, reputable photographer will not take advantage of the helpless attitude of the public and act unfairly toward his clients until laws shall have been enacted for their protection; but, recognizing what is manly, right and decent, set a worthy example to those practitioners who discredit the profession and lower themselves as men. Here, indeed, is an opportunity for the photographic associations and camera clubs.

To the credit of the craft be it said, however, that there are many high-class photographers who have always made it a practice never to issue a portrait, for publication or otherwise, except with absolute consent of the sitter. Some of these conscientious practitioners go so far as to print a statement to that effect conspicuously on their stationery.

An Important Business Change

ONE of the most important events in the photographic world, of recent years, is the absorption by the Eastman Kodak Company of the Artura Photo-Paper Company, of Columbus, Ohio. This *coup* has been a fruitful topic of discussion in photographic circles, both the trade and the craft, inasmuch as it had been entirely unexpected. Of the merits of the transaction we have nothing to say, except that it must have been, as those matters usually are, a matter of mutual benefit to both parties concerned. The Artura Company has a reputation second to none for the excellence of its products and its business-methods, of which a proof, if any were needed, is the fact that the business has been purchased by the Eastman Company. There is no question that Artura is the product that most successfully meets the requirements of the regular practitioner in a development-paper, which circumstance was, obviously, the principal factor in this, the most important transaction that has occurred in the photographic industrial world this year. The Artura Company has enjoyed prosperity to a high degree, therefore was not obliged to dispose of its plant. It received an offer of so tempting a character that it could not consistently be refused. The business of manufacturing the well-known Artura products will be continued, as heretofore, and abundant facilities will be afforded consumers to purchase them. In acquiring the business of the Artura Photo-Paper Company, the purchasers recognize the fact that the personnel of a going concern is seriously to be considered. Therefore, Mr. M. A. Yauck will be retained in the capacity of superintendent in the manufacturing-department. The services of Mr. Schuyler Colfax have also been secured, as well as those of the important members of the Artura staff. We congratulate the Artura Company on being able to dispose of its business to an obviously profitable advantage, and the Eastman Kodak Company is hereby felicitated for having consummated the purchase of an important and permanently valuable property.

OUR ILLUSTRATIONS

In the leading article of this issue Mr. Hoppé has spoken individually of the R. P. S. prints here reproduced. We regret that they were secured so hastily for publication that there was no opportunity to send for technical data from the makers.

Our frontispiece, "The Duet," is a convincing example of the versatility of J. E. Mock. Famed for his beautiful portraits of women, this well-known artist here gives evidence of his broader scope and success in genre. In conception, as well as execution, this picture is a signal success and does its maker credit. Data: February, 10 A.M.; very good light; 1 second exposure; Seed plate 16 x 20 in 20 x 24 camera; Voigtländer Portrait Euryscope, 5½-inch diameter; pyro developer; Azo print for reproduction.

"A Game of Marbles," by Louis Wedel, is an excellent genre in which the interest is well concentrated and each separate figure well posed. The strong lines of the shadows also serve to point out the marbles as being the subject of chief interest to the boys. A brick wall is not the most attractive of backgrounds, but such scenes must be taken where found, and in this case the wall is somewhat subdued and not very objectionable. Data: September, 4 P.M.; good light; 4 x 5 Graflex camera; Plagiatum lens, 7-inch focus, full open; ½ second; Cramer Crown plate; M. Q. developer; Royal bromide enlargement.

The Monthly Competition

STRANGELY enough, the returns in our last monthly competition were very disappointing from a numerical standpoint. "At the Seashore" seemed such a popular subject, furnished such a broad scope and permitted of such a variety of material and treatment that we expected an unusually large number of entries. Possibly, the closing-date was too early and did not allow sufficient time for many to finish prints from new negatives made during the summer vacation.

Fortunately, however, there was a saving grace — the uniform high quality of the entries submitted. Seldom has a contest yielded a better showing of prize-winners.

The first-prize print, "His Seashore Girl," by T. W. Kilmer, is pure genre, although the subordinate surroundings readily show that it was taken at the seashore. It has obvious faults: the foreground is too "busy" and confusing, while a foot has been distorted badly; yet the pose of the figures and the expression of the faces is so spontaneous, natural and so thoroughly expressive of genuine enjoyment that one forgets all these little things and thinks only of the pretty sentiment of the picture. It is rare, indeed, that one finds a juvenile genre

which is so pleasing, and in the catching of the fleeting expressions of childish faces one must forego some measure of artistic composition. Data: No. 3 Kodak; lens at f/8; ½ second exposure at 11 A.M., July; cloudy-bright light; Kodak film; Velox print in Brownie enlarger.

In the second-prize print by Gust Horlin is found a scene about the docks called "Sunset across the Water." It is an excellent example of the beauties which certain atmospheric conditions give to commonplace material which in the bright light of a clear day would have no pictorial value whatever. The objects of interest are well disposed in the picture-space; the haze has softened obtrusive detail and given that shimmering glassiness to the water without a trace of harsh contrast in the sun's reflections. Data: Graphic camera; Goerz lens, f/8; 2 seconds exposure; Lumière Blue Label plate; platinum print toned with mercury.

Quite different from either of these is Louis Fleckenstein's third-prize picture, "Study in White in Beach Sunshine." Here is seen a beautiful study in light tones and an example of the benefits of full exposure in securing gradation. The average worker would more likely have given ½ second than ¼; but would he have secured so superb a result? We think not. Aside from the beauty of tone, the scene is a typical and attractive one and the pose of the figure graceful. Data: July, 2 P.M.; bright sun; Standard plate; ½ second exposure at f/8; pyro developer; Royal Nepera print.

"A Guardian of the Coast," by Wm. S. Davis, is an excellent example of marine work, telling its story in an eloquent manner. The print is well spaced and intelligently treated, the reflected light on the water beyond the lighthouse forming a pleasing accent, which serves, we think, to emphasize the idea of loneliness which we usually associate with such an isolated spot. Data: made from a steamer about 6 P.M., August; ⅓ second exposure; single achromatic lens 6½-inch focus, f/11; 3¼ x 4¼ Cramer Inst. Iso plate, backed; enlarged print on Ollo paper.

Our Cover-Design

MRS. CHARLES S. HAYDEN, whose work is somewhat familiar to readers of PHOTO-ERA, excels in genre work, particularly in studies of children, many of which we have reproduced in past months. Like several of our other contributors, she possesses, in addition to photographic ability, those rare qualities of *camaraderie* and patience with children which make for success in this line of work. Our cover this month presents an excellent pictorial treatment of a difficult subject. The larger panel conveys the main theme, with the side panels as subsidiaries to it, showing the thoughts of the child. We regret that no data are available for publication.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

Szczepanik's Method of Color-Photography

THE practice of color-photography, in America, at least, underwent a decided decline after the first enthusiasm. A simplified method of development and more uniformity in the plates, however, has served to arouse interest again among many advanced photographers; but as winter approaches and the light wanes, exposures must be discouragingly long. This is unavoidable because of the imperfectly transparent character of the starch-grains and the black filling-in material of the interstices. In this connection an interesting patent has been filed by Mr. Jan. Szczepanik, inventor of the three-layer paper, which, if put on a commercial basis, would supply a screen-plate for color-photography having very slight light-absorption. Friedrich Limmer describes the process in the *Zeitschrift für Angewandte Chemie*.

Szczepanik bases his new process on the law of "migration of colors." This law is empirical; no satisfactory explanation seems to have been offered for the same. Certain coloring-matters show a preference for certain substrata. Thus, if a layer of collodion colored red with erythrosin is placed over a colorless layer of gelatine the erythrosin "migrates" (almost) completely from the collodion into the gelatine. It has been observed that (with few exceptions) basic dyestuffs show a marked preference for collodion; acid dyestuffs, for gelatine. Thus, as soon as the opportunity is given, acid dyestuffs "migrate" from collodion into gelatine; and basic dyestuffs, from gelatine into collodion.

There is a class of substrata which behave toward coloring-matter in somewhat the same way as does collodion, while another class acts much like gelatine. Among the latter is, for instance, powdered gum arabic.

Szczepanik prepares three solutions of gelatine or gum arabic. Each solution is colored with a suitable dye, and is then cautiously evaporated to dryness. The particular dyes used must, of course, have a preference for collodion. The "solid" masses of gelatine or gum arabic obtained by evaporating the solutions are finely powdered, and the three powders of different colors are carefully mixed. The mixture of these colored powders is then sifted over a slightly moist collodion plate by means of a special apparatus. The coloring-matters migrate from the gelatine powder into the collodion film, producing

a mosaic of small colored patches similar to the starch-granules of the autochrome plate. The powder originally dusted on the plate, which has lost its color, is washed off.

It may happen that particles of the powder overlap on being dusted on the plate. Nevertheless, no transfusion of color between the individual particles themselves takes place. The overlapping particles are washed off subsequently, together with the spent particles. Owing to imperfect contact between the powder and the collodion film, colorless patches are apt to be formed here and there. This may be remedied by using a little less of one of the colored powders than is actually required. The plate is then, after dusting over, placed in a bath of a gelatine solution of that dye of which an insufficient quantity was used previously. In this way the uncolored patches also are properly pigmented.

According to this process of Szczepanik, a tri-colored film is obtained which has a number of obvious advantages over the Autochrome film. It is considerably more transparent than the latter. It contains no kind of filling-in material. Every color-patch is directly contiguous with its neighbors. The advantages gained are:

Greater sensitiveness to light; increased brilliancy and brightness of the pictures; freedom from parallax — a matter of much importance in preparing copies from the plates.

Autochromes and Extremes of Contrast

At the exhibition of the Royal Photographic Society, in London, were shown some interesting Autochromes by H. G. Drake-Brockman, F.R.P.S., which prove that, in spite of the often-repeated statement to the contrary, the Autochrome plate is capable of reproducing satisfactorily very great extremes of contrast. The transparencies shown were made at some of the famous blast-furnaces of Yorkshire, and show a variety of scenes in connection with the pouring of molten metal. The dim surroundings of the buildings form violent contrasts with the metal, which, as shown, is at an approximate temperature of three thousand degrees centigrade. In every instance the metal appears molten, shows the characteristic appearances of good material and is so faithful that an expert could express an opinion as to the probable quality of the yield of the furnaces.

These results have been brought about by treating the Autochromes with potassium bichromate, much as is done in the case of very con-

trasty bromide enlargements. Solutions ranging in strength from .5 to 1.5 per cent were used and the plates were soaked therein for from thirty seconds to two minutes, both the strength of the solution and the duration of the treatment being in proportion to the degree of contrast in the subject; the greater the contrast, the longer the treatment and the stronger the solution. The action of potassium bichromate on the plate, states the *British Journal of Photography*, is apparently that of holding back the development of the excessively exposed portions, while the detail in the shadows comes up. This is an expression of the fact that in the high-lights no excess of the emulsion is reduced on first development and that an appreciable amount is retained for development after reversal. As a result of this treatment development is prolonged to a variable extent, depending on the time of preliminary immersion of the plate and upon the strength of the bichromate solution. When immersed in the solution the bluish coloration of the emulsion vanishes and the plate loses color-sensitiveness and, after rinsing, may be developed in an orange light by the usual method. The success which has attended Dr. Drake-Brockman's experiments suggests control in many subjects where contrasts of vigor are likely to occur, as in some types of interior work, portraiture in poorly-lighted rooms and in photomicrography.

Concentrated Metol-Hydro Developer

SEVERAL small dealers and others who do developing and printing for the amateur trade have asked us to furnish the formula for a concentrated gaslight paper developer such as is sold in the photo-supply stores. There are a great many formulae, and one of the best appeared recently in *Photographische Industrie*. The chemicals should be dissolved in the order given, allowing time for each to dissolve before the next is added. The water may be warmed slightly to facilitate matters.

Water	33	ounces
Sodium sulphite crystals	5	"
Metol	75	grains
Hydroquinone	150	"
Potassium carbonate	3	ounces
Potassium bromide	15	grains

For gaslight paper one part developer to two parts water is required. For plates or films the proportion may be one to three or four. As a rule, however, paper developers are not suited to negative work because of the large proportion of hydroquinone, which tends to give too great contrast.

Pencil-Work on Bromides

IN the October issue of PHOTO-ERA I called attention to the Sellors method of steaming bromides to retain their brilliancy. Since that time another application of steaming has come to my attention in a note by W. T. Horsfall in *Photography* for Aug. 31, 1909. It occasionally happens that considerable pencil-work is

desirable on the surface of a bromide or gaslight print. This is likely to be removed after a time as a result of handling the print or by cleaning it if it becomes soiled. To prevent this and avoid the necessity for doing over the pencil-work, Mr. Horsfall suggests that the print when finished be held for a few seconds in the steam from a kettle as described in the October PHOTO-ERA. The best distance is four or five inches from the spout. If it is too far, the pencil-work is not fixed, while if too near, the print may run. A trial with a bit of the trimmed edge or with a waste print will soon show the correct distance. It does not need to be held there for more than ten seconds, at the most. The pencil-work will then be found to be indelibly fixed.

Chiffon as a Substitute for Bolting-Silk

"SOME eighteen months ago," states Mr. Herbert Mills in *The Amateur Photographer* for August 24, "after experimenting with a piece of bolting-silk, it struck me that there might possibly be other materials quite as suitable, and possibly cheaper. The first material I used, and which I have exclusively used ever since, was chiffon — a soft, diaphanous material, not too closely woven, and obtainable in various colors.

"The piece that was given to me was heliotrope. I held the chiffon immediately in front of the lens, and examined the effect on the screen, upon which the image was focused sharply. A delicate softening of the picture was the result.

"I then folded the material, and again noted the effect of the two thicknesses. The image, as was to be expected, was still more subdued, but quite different from that given by the bolting-silk.

"Then three thicknesses were placed before the lens, but in this case the result was rather *outré*, although for a big enlargement from a strong negative it would be particularly effective with subjects of suitable character.

"Test-exposures were then made to ascertain the necessary increase in exposure when using one and when using two thicknesses of the chiffon. In the first instance about half as long again was found to be about the correct exposure, and twice the normal exposure in the second.

"The chiffon, it should be mentioned, is attached to the lens by means of a cardboard ring, which fits the lens-hood — the frame of an old lens-cap would answer.

"Those who have used bolting-silk will know that its softening-effect on the enlargement is really a slight blurring of the outlines, whereas chiffon, as I have just mentioned, preserves the sharp outline, providing the image is focused sharply. In other words, chiffon does not destroy either definition or detail."



If you are not a subscriber you are not a regular reader, and if not a regular reader you are missing the best in PHOTO-ERA.

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus.

Christmas

"POETRY'S unnat'ral," asserts one of Dickens' characters. "No man," he continues, solemnly, "ever talked poetry 'cept a beadle on boxin'-day, or Warren's blackin', or Rowland's oil, or some o' them low fellows. Never let yourself down to talk poetry, my boy."

However much of this is good advice one must judge for himself, but there really is one time of the year when one almost needs to "talk poetry," and that is when it's "Merry, merry Christmas everywhere;" when,

"Deep lies the snow upon the earth,
But all the sky is ringing
With joyous song, and all night long
The stars, too, dance with singing."

It is when the year is old, too, that we seem to come into closer touch with each other; that we feel the Great Brotherhood of Man to be something more than a mere term, and we pray for "Peace on earth, good will to men."

And before it is really gone, before we greet the New Year already hastening toward us with flying feet, let us look about us and see if there is not some one in sorrow or some one in pain to whom we can bring a little of the season's good cheer and brightness; and let us, whatever causes we may have or think we have had for feeling otherwise, lay aside all differences and extend, as far as in us lies, "good will to all."

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

Rules

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor, and must be artistically mounted.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.

5. Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

Subjects for Competition

November — "Glimpses of Foreign Lands."

Closes December 31.

December — "Self-Portraits." Closes January 31.

1910

January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

Prizes

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

FIRST
PRIZE
AT THE
SEASHORE



Copyright, 1909, T. W. Kilmer

HIS SEASHORE GIRL

T. W. KILMER, M.D.

Awards — At the Seashore

First Prize: T. W. Kilmer, M.D.

Second Prize: Gust Horlin.

Third Prize: Louis Fleckenstein.

Honorable Mention: Wm. S. Davis, Beatrice B. Bell.

Meritorious work was submitted by Mrs. Chas. S. Hayden, S. R. Kitchin, Max A. R. Brünner, Clara Jacobson, Leander Miller, Alex. Murray, Inez D. Lashmutt, Wm. P. Halliday, C. A. Hutchinson and Mrs. Alice H. Knight.

The Forthcoming Competition

OUR December subject for the monthly competition has brought to the editor many queries as to just what is meant by "Self-Portraits," some thinking it was a portrait of the amateur who competed taken by some one, while others thought it was a portrait of some one taken by the amateur. And some "guessed right the very first time."

This guess was that a self-portrait meant that the picture must be of the amateur himself taken



SUNSET ACROSS THE WATER

GUST HORLIN

SECOND PRIZE — AT THE SEASHORE

by himself. At first this seems rather a difficult thing to do, but there are many ways of taking one's own picture.

One way is to have the bulb which controls the shutter attached to a piece of rubber tubing long enough to reach from the camera to the point where the sitter is to be posed. The camera is placed in position and the focus adjusted, then the sensitive plate put into the camera and the slide withdrawn. The amateur then takes his place at the point chosen for the picture and, by pressing the bulb either with the foot or with the hand not in sight, makes the exposure. The shutter can, of course, be set for any length of time, so that if it is in the house the exposure can be a time and if out-of-doors, then a snap-shot. The entire operation of the camera is the same as though there were a photographer and a subject, instead of one being both.

Another way of making a self-portrait when one has no bulb or rubber tubing is to make a picture by lamplight. First arrange the lamp, chair, etc., and decide on a pose which may be taken quickly. It may be that of reading a book or a paper, preferably a book. Then get the camera in readiness, uncap the lens or open the shutter, as the case may be, and at once assume the pose for the picture. The action of the lamplight is so feeble compared with daylight that the impression made on the plate between the time of uncapping the lens and taking one's

seat is practically nothing at all. The time of exposure for the lamplight picture must be from five to ten minutes, and when that time has expired go quickly and cap the lens. If the movements have been rapid the resulting image will not show any blurring from the going to and fro at the beginning and end of the exposure.

Flashlights may be used for the taking of self-portraits, and perhaps is as satisfactory a way as any of making this kind of picture. In the setting off of the flashlight one would have to use a fuse, and the best kind of flash to use for this purpose is the flash-sheet. A fuse can be attached to one corner of the flash-sheet, the camera opened, the fuse lighted and the pose quickly taken. This would be done in a room lighted with gaslight.

BEGINNER'S COLUMN

THE ROUND ROBIN GUILD seems in a measure to have outgrown itself. With fifteen hundred enthusiastic members in all parts of the American continent, and many abroad, it is natural that many pictorialists of high standing should be included and participate in the monthly competitions. As a result, these older and more successful workers in photography have for the most part carried off the honors at the expense of the beginners, for whose benefit the Guild



STUDY IN WHITE IN BEACH SUNSHINE

LOUIS FLECKENSTEIN

THIRD PRIZE — AT THE SEASHORE

was primarily intended. Thus, the publisher of PHOTO-ERA has found himself in a quandary how best to provide for these two distinct classes of camerists in the Guild. As a possible solution he submits to his readers a separate series of

Quarterly Contests for Beginners

In these contests all Guild members are eligible EXCEPT those who have received Guild prizes in the past. Aside from this restriction, the rules which govern the monthly competitions will be in force here and the prizes will be payable in the same manner.

All prints submitted, except prize-winners, will be returned if postage is sent.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is worthy will be given Honorable Mention.

Thus, beginners are given a much better opportunity than hitherto for recognition and comparison of their work with that of those more nearly in the same class with themselves. Those who compete here, however, may do so in the monthly competitions as well, and, in either case, all work submitted will receive personal criticism from the editor of the department.

Subjects for Competition

HOME-SCENES — CLOSES JAN. 15, 1910

This is a favorite subject of many workers at that season of the year, particularly those who do not enjoy winter-work outdoors. In the contest, however, are included scenes outdoors as well as within, and in summer as well as winter. The essential feature about them all must be that they portray familiar home-scenes with figures. Pictures which are essentially portraits may be entered, provided enough of the surroundings is in evidence for one familiar with the scene to recognize it.

SNOW-PICTURES — CLOSSES APRIL 15, 1910

Here is presented a very wide field, so that nearly every camerist may enter one print, at least. The pictures may be snow-covered landscapes in all conditions of weather, park-scenes, outdoor sports on the snow or ice and a variety of other subjects, including human life or not.

SOUVENIR-PHOTOGRAPHS — CLOSSES JULY 15, 1910

It is intended that this competition shall include photographs made as souvenirs while away from home, whether in one's own country or abroad, or only on a short vacation-trip. Thus they will portray objects of historic or other interest, and incidents worthy to be recorded. Figures may or may not be included, and the subject-matter may be landscape, marine, architecture, etc.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

ALICE D. W.—A weak solution of cyanide of potassium will remove the silver stain from your negative. Dip a piece of absorbent cotton in the liquid, rub the stained part gently and the stain will disappear. Wash well and dry. As an extra precaution against the cyanide itself staining the plate, it is a good idea to immerse the negative for a few minutes in a weak solution of hypo.

DENNIS D. C.—A formula which will give you red tones on your platinum prints is made up as follows: No. 1. Dissolve eighty grains of ferricyanide of potassium in ten ounces of water and add one ounce of acetic acid. No. 2. Dissolve eighty grains of nitrate of uranium in ten ounces of water and add one ounce of acetic acid. To use, mix the two solutions in equal quantities. Place the developed prints in clear water till thoroughly soaked, then blot off the superfluous moisture and immerse the prints one at a time in the solution. The color will turn to a very pleasing tone of red, with a brownish or sepia tinge. After the desired tone is reached immerse the prints in an acetic acid bath made of three drams of acetic acid to ten ounces of water. This bath is excellent for under-exposed prints, as it acts as an intensifier as well as tones the prints.

JOHN L. M.—To tone a bromide print to a warm sepia, make a saturated solution of mercury bichloride, using muriatic acid for the solvent instead of water. To use, take one-half dram of the solution to sixteen of water. Place the print, which has been previously wet, in this solution until the image is bleached. Then transfer it to a weak solution of ammonia, perhaps one ounce of ammonia to fifty of water. This will turn the image to a rich, warm brown or sepia. As for the permanency of the image, the print must be thoroughly washed to remove all traces of the chemicals. Mercury bichloride is a somewhat unstable chemical, and sometimes the prints deteriorate when subjected to its action, but if care is taken in thoroughly washing the print the tone ought to remain.

B. F. DEANE.—Pyro does not keep well in solution, so one should have it put up in small quantities and use either a glass-stoppered bottle or else seal the cork by dipping it into melted paraffin wax. Yes, metol and pyro work well in combination, the metol giving detail and the pyro building up the density.

CARL W.—In taking architectural views be sure that your ground-glass is in a horizontal

position. If it is tipped at all it will produce distortion in your picture. The tilting of the camera may be resorted to in cases where the rising front will not bring the building on the plate, but the focusing-glass must always be horizontal and may be adjusted easily by means of the swing-back.

W. S. S.—We do not publish formulæ for flashlight powders. The preparation of flashlight powders is a dangerous process for one unskilled in the use of these powerful explosives. It is much wiser and far safer to buy the prepared powders, and best of all are the flash-sheets, which burn with comparatively little smoke and make no noise whatever, besides giving a much softer flash than that produced by the powders.

ANNA P.—See the January PHOTO-ERA, 1909, for directions how to replace a broken negative or to make a new negative. If you have not this number it may be obtained at this office if stamps are sent for mailing.

J. E. B.—The agent for the photo-paper about which you ask is G. Gennert of New York. This is an imported paper and gives most satisfactory results. The price is about the same as the American papers.

R. C. C.—Instead of putting up your chemicals in solution for developers, have the ingredients weighed out in quantities of each to make a four-ounce solution. Wrap the chemicals in double waxed paper and store in a glass can with a screw-top to avoid moisture. If in addition a piece of calcium chloride is put in the can it will be an additional safety. Any formula for developer may be used, simply dividing the amounts into what will constitute a four-ounce solution. Then when ready to use take the powders and add the water. Each chemical should be wrapped by itself, and then the combined amount done up in one wrapping. This will be found not only a safe, but a very convenient way of preparing developers.

G. P. K.—Mercuric chloride toning is not considered a permanent process, the photographs having a tendency to fade after a time, but if the prints are properly cleared and well washed they should have good keeping-qualities. The editor has some made ten years ago which are as bright as when first made. If the pictures have a sunken look after drying, varnish them over with artists' fixatif. This will not give a gloss, but brightens the print.

C. B. W.—The answer to your question as to "What are self-portraits?" will be found in detail in this issue of the magazine. You will find the experimenting a very interesting one to make. We expect to receive pictures of much merit, as well as a large quantity of entries.

F. B. W.—The bleached spots on your blue-prints seem to be due to the action of some sort of acid on the paper. Blue-print paper is one of the most reliable as well as the easiest of papers to use, and one seldom has any mishap to his prints. Perhaps the surface on which they were dried was responsible for the spoiling of the print.



A GUARDIAN OF THE COAST

WILLIAM S. DAVIS

HONORABLE MENTION—AT THE SEASHORE

Your suggestion as to a portrait-book will be noted in a future number of this department. The editor would very much like to have such a book, and thinks it would be an interesting production.

R. E. F.— The blue-print which you enclosed which has a glazed or glossy surface is the new blue-print card. It brings out detail much better than the matt surface and for picture-postals is specially good. The postals and papers are made by the Eastman Kodak Co.

C. V. MORSE.— The best lens for copy-work is one with a flat field. View-lenses are well suited to copying, and if you have an extension-bellows to your camera you can copy in almost the size of the original. Use as large a diaphragm as will give a good clear image all over the plate, remembering that the smaller the diaphragm the longer must be the exposure. See that the print from which the copy is to be made is evenly illuminated.

M. P.— No, it is not necessary for you to have a ray-filter and use orthochromatic plates for the purpose of securing clouds in landscape-pictures. If the day is unusually bright, making the clouds very white, then make two exposures, one for the landscape and the other for the clouds, and introduce clouds into the landscape by the means of double printing.

MAURICE D. H.— For night photography have everything ready to use before starting out

on your picture-excursion. If you use a cap for the lens, then have it attached to camera or tripod with a string, so that it will be always ready. If you use plates, have the boxes or bags in which you carry the plate-holders of two distinct colors, or of black and white, so that you may carry unexposed plates in the white bag and, when exposed, transfer the used plate-holders to the black bag. The exposure varies from one minute to an hour, according to the light or lights.

BEN. H. G.— In developing cloud-negatives use a weak developer and do not make a negative which is too dense. A thin negative is the best for a cloud-picture, as one gets very soft details and beautiful gradations which are lost if the negative is too dense.

L. A. G.— It would appear that the reason why only a small spot on the roll of films showed any detail was due to there being some defect of the shutter which admitted only a small point of light. This seems the correct solution, owing to the fact that the spot appears in the same place on each film. When the camera is empty of films, either test the shutter or take it to your dealer, who will be glad to do it for you, and if it is out of order will be able to repair it.

P. W. E.— The reason of your print leaving its support was doubtless due to the fact that the support was paper and, not being coated, was not impervious to water. A flexible support for a carbon is paper coated with shellac and insol-

uble gelatine, or else well washed. The print which you enclose is from an excellent negative, and the portrait quite interesting.

S. L. LEWIS.—The reason of the prolonged development is because your developer was too cold. Hydroquinone is specially susceptible to heat and cold and it should be at a temperature of at least 65° F. It takes longer to fix a plate in a cold bath also, hypo being a chemical which readily lowers the temperature of the water.

JULIA D.—The reason why your negatives are thin is because they were taken from the developer before they had acquired the proper degree of density. With metal plates should be left in until all detail is practically gone and the plate begins to have a grayish look.

A. ANDERSON.—A formula for synthol developer is as follows: 450 grains of sodium sulphite crystals; 45 grains of synthol; 8 grains of potassium bromide; and 10 ounces of water. Carry the development on until the image has almost faded, then rinse and fix as for other plates.

B. L. H.—Your platinum prints were over-toned. To stop the toning if it proceeds too rapidly immerse the print in a solution of sodium carbonate made in the proportion of ten grains of the carbonate to each ounce of water. The print enclosed is very attractive, but will bear trimming at both the left side to cut off the obtrusive high-light and also at the top where the

film seems to have an injury in the sky portion. The trimming at the top will also give better proportions to the picture.

CHARLES L.—To give a protective surface to prints mounted on wood, first size the print with a thin coating of gelatine made by dissolving gelatine in water and then using as a varnish. When dry or set, varnish it with copal varnish such as is used by artists. This will give a hard surface which will not be likely to be injured or marred easily.

D. McF.—The focal length of a lens is the distance of the lens from the plate when an object at a great distance is in sharp focus. A spectacle-lens is a lens of a single glass. Do not wet the lens to clean it. Breathe on it and wipe off with a piece of old, soft silk or a very soft piece of clean chamois. Touch the surface lightly, as the glass is easily scratched. To water-proof a wooden dish so it can be used for a fixing-tray, either dip it in melted paraffin wax or coat with a solution made of twenty parts benzole and one part asphalt. You can make a fixing-tray of shelf-oilcloth and an old plate-box which will last a long time by taking a piece of oilcloth a little larger than the box, smoothing it down inside the box and folding in the corners after the manner of folding a package. A stout rubber band around the box will keep the oilcloth in place. If a small wooden box is used the edges of the cloth can be tacked to the box.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
Anso Film, N. C. and Vidil	Hammer Extra Fast	Lumière Panchro C
Cramer Crown	Hammer Extra Fast Ortho	Class 4
Cramer Crown Non-Halation	Hammer Non-Halation	Stanley Commercial
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Class 5
Cramer Inst. Iso Non-Halation	Seed 26x	Cramer Commercial
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Plain
Cramer Trichromatic	Seed L. Ortho	Defender Non-Halation Ortho
Defender King	Seed Non-Halation	Defender Ortho Slow
Defender Ortho Inst.	Seed Non-Halation Ortho	Hammer Slow
Eastman N. C. Film	Standard Extra	Hammer Slow Ortho
Ensign Film	Standard Orthonon	Class 8
Hammer Special Extra Fast	Wellington Speedy	Cramer Slow Iso
Imperial Special Sensitive	Class 1 1/2	Cramer Slow Iso Non-Halation
Imperial Orthochrome Special Sensitive	Lumière Ortho A	
Kodoid	Lumière Ortho B	Class 12
Magnet	Class 2	Defender Queen
Premo Film Pack	Cramer Medium Iso	Seed Process
Seed Gilt Edge 27	Cramer Medium Iso Non-Halation	Class 100
Standard Imperial Portrait	Wellington Iso Speedy	Lumière Autochrome
Standard Polychrome		Lumière Red Label Slow
Stanley Regular		
Wellington Extra Speedy		

The Round Robin Guild Exposure-Guide For December

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of December, on any fine day at noon, when the sun is shining brightly and the lens is working at $f/8$, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if $f/11$, U. S. No. 8, is used. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and very dull light, or if $f/16$, U. S. No. 16, is used; also from 9 to 10 A.M. and from 2 to 3 P.M. For $f/5.6$, U. S. No. 2, give half. At 11 A.M. and 1 P.M. increase the exposure one-fourth. Between 10 and 11 A.M. and 1 and 2 P.M. increase it one-half.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds; open snow-scenes without foreground ...	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds; winter scenes having very light snow-covered foregrounds	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; average snow-scenes	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes; snow-scenes with excessive contrast	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving objects at least thirty feet away	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
Portraits outdoors in the shade; very dark near objects	1/6	1/3	2/5	1/2	2/3	4/5	1 1/3	1 3/5	2	2 2/3	4	32
Badly lighted river-banks, ravines, glades and under the trees	1/3	2/3	4/5	1	1 1/3	1 3/5	2 2/3	3 1/5	4	5 1/3	8	64
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	1	2	2 2/5	3	4	4 4/5	8	10	12	16	24	192

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

September 28, 1909

935,115. PHOTOGRAPHIC DEVELOPER. WILLIAM FRASER CLAUGHTON KELLY and JOHN ARTHUR BENTHAM, London, England.

A formula for a developer to be applied as a coating to the backs of plates or films, so that immersion in water forms the developing-solution. The formula is as follows:

Metol	2 grains
Hydroquinone	4 "
Potassium metabisulphite	$\frac{1}{2}$ to 1 grain
Borax	10 to 20 grains
Colloid q. s. or Glycerine q. s. (Optional for assisting solubility)	

The chief feature of this formula consists in using borax as the accelerating-alkali. Being a bi-borate and an acid, the borax acts as a preservative of the dry developing-constituents in a solid state and, upon immersion in water, the borax and water interact upon each other and the borax hydrolyzes into soda and boracic acid and so becomes an accelerator.

935,148. APPARATUS FOR DEVELOPING AND WASHING PRINTS. HENRY C. GAWLER, Chicago, Ill.

A machine for the mechanical developing, washing and drying of large blue-prints for commercial purposes.

935,156. PHOTOGRAPHIC DEVELOPER. WILLIAM FRASER CLAUGHTON KELLY, London, England.

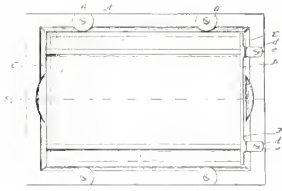
This invention relates to the use of the developing-formula described in 935,115 in tablet form, instead of being spread upon the plate.

935,167. DRIVING-MECHANISM FOR KINEMATOGRAPH APPARATUS. CARLO ROSSI, Turin, Italy.

This patent relates to a mechanism for driving a band of film intermittently in kinematograph apparatus used either for projecting or exposing a film by means of a reciprocating movement of two claws engaging perforations in the edges of the film. Uniformity and precision of the movement, as well as reduction in the wear of the edges of the perforations, are secured.

935,486. PRINTING-FRAME. LOUIS D. GAGNE, Manchester, N. H.

A device for holding the film or paper mask, or both, firmly in position in the printing-frame, so that any number of prints may be made after a single adjustment of the nega-



tive. The film and mask are held in place by the strips E extending along opposite sides. The strips are normally bowed and are inserted by placing one end under the keeper-strip C at one end of the frame and pressing down the other end of the strip against the metal spring D, which snaps over the strip and holds it flat. Pads of various widths to fit between the strips are provided, to be fastened to the back of the frame by screws.

October 5, 1909

935,760. ART OF PHOTOGRAPHY. JOSEPH J. JOHNSON, Dayton, O.

A device for operating the shutter of a camera suspended from a kite-line by the use of electro-magnets attached to the lens-board. The camera is hung from the kite-line in such a way that the weight of the electric wires reaching to the batteries on the ground may be compensated for and the camera made level. In fact, it is impossible to expose unless the camera is level, as the electric contact is made through a tube of quicksilver in such a manner that the quicksilver must extend from one end of the tube to the other in order to make a contact, and this is impossible unless the camera is level.

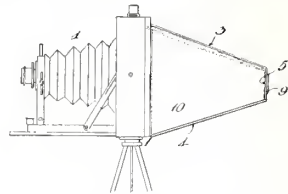
936,031. MOVING-PICTURE MACHINE. JOHN J. PINK, Assignor to Viascope Mfg. Co., Chicago, Ill.

A simple mechanism for intermittently advancing the film to bring the views in rapid succession in front of the operator and allow them to remain at rest in such position during the greater part of the cycle of operation, whereby the image may remain in the eye during the interval that the film is advanced and the breaks between the consecutive pictures will be practically unnoticed.

October 12, 1909

936,307. FOCUSING HOOD FOR CAMERAS. EDWARD P. COMRIE, Gloversville, N. Y.

A focusing-hood for cameras providing a simple, foldable hood which may be applied to the camera in place of the focusing cloth. It comprises a stiff top, bottom and front



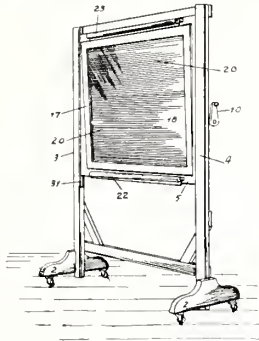
end-walls, 3, 4, and 5 respectively, which are formed by an inner piece of pasteboard bent to the proper form and encased by a suitable leather or other casing. Between the top and bottom-walls are arranged foldable side-walls 10 of pliable material such as leather. The front end-wall is provided with a pair of centrally-disposed sight-openings 9.

936,323. PHOTOGRAPHIC APPARATUS. HENRY B. JORDAN, Fort Lawn, S. C.

A device in which a photographic negative can be developed, washed and fixed and in which a photograph can be printed and the print developed, washed and fixed.

936,707. PHOTOGRAPHER'S LIGHT-REFRACTOR. WILLIAM C. FARREND, Newark, N. J.

A substitute for the usual reflector for directing sidelight upon the sitter. Flatness of reflected light is avoided by



this device, which refracts rather than reflects. It consists of a frame enclosing a sheet of parallel-prism glass, as shown, with means of changing the height and the angle of the glass.

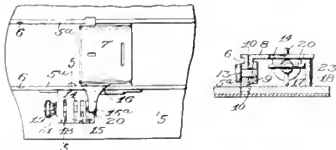
October 19, 1909

937,077. FOCUSING-DEVICE. ROBERT KROEDEL, Assignor to Eastman Kodak Co., Rochester, N. Y.

This device for folding pocket-cameras of the Kodak type enables one to focus by scale when using plates in an adapter the same as when using film. The difference in position of the sensitive material is compensated for by two indicators, one for plates and one for films, which travel over the focusing-scale. As these indicators also serve as abutments to engage the adjustable stop in the well-known manner, the longer of the indicators is pivoted to turn out of alignment when the shorter is to be used.

937,156. FOCUSING-DEVICE. ROBERT KROEDEL, Assignor to Eastman Kodak Co., Rochester, N. Y.

A bracket 8 is secured to one of the track-plates 5a of the camera in such a manner that it may be changed in position to meet the requirements of different lenses. The bracket is divided on its upper face, at intervals, into a series of slots 14, each having an index-character 15 representing the dis-



tances for which the lens is in focus when the abutment 16 is at that point. The projections 20 of the rotary stop 18 turn into the slots 14. There is a projection for each slot, so that by turning the stop any projection may be brought into a vertical position to engage the abutment 16 and stop the front-board of the lens when the latter is in the desired focus.

937,174. MOVING-PICTURE MACHINE. MARTIN A. PROCTOR, New York City.

A film-guide consisting of a circular carrier and a rounded side-plate, co-acting with the film near its edges, thus simplifying the mechanism and improving its operation.

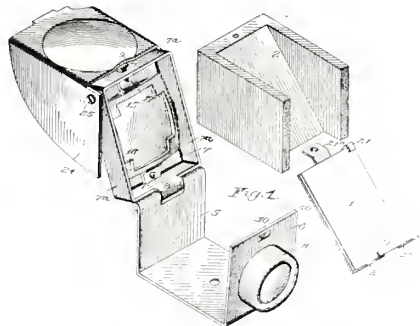
937,248. PHOTOGRAPHIC SHUTTER. ROBERT KROEDEL. Assignor to Eastman Kodak Co., Rochester, N. Y.

A curtain-shutter, giving a variety of speeds, which closes during the receding movement of the curtain as a protection to the film.

937,262. PHOTOGRAPHIC FILM-ROLL. THOS. K. OVERLAND, River Forest, Ill. Assignor to Eastman Kodak Co., Rochester, N. Y.

This patent covers the method of providing a gummed paper seal for fastening the free end of the backing-paper of roll-films after exposure. One end of the gummed seal is stuck to the backing-paper, when the films are packed, in such a position that by folding under a section of the backing-paper the seal may be moistened and attached to the roll. Folding the paper makes it easy to break the seal for development by running the thumb-nail across the seal at the point of folding.

937,266. CAMERA-FINDER. JOHN A. ROBERTSON, Assignor to Eastman Kodak Co., Rochester, N. Y.



The cut seems self-explanatory, as the object of the invention is to provide a finder which may be opened easily for cleaning the lens and reflector.

937,309. PHOTOGRAPHIC APPARATUS. JOHN J. KELLY, New York City, and JOSEPH F. TREERDELL, Jersey City, N. J.

A portable structure with sight-opening and arm-holes for loading holders, developing and fixing.

937,367. KINEMATOGRAPHIC APPARATUS. WM. FRIESE-GREENE, Brighton, England.

A device for photographing and projecting animated pictures in natural colors. It consists of mechanism to advance the film intermittently and, in close contact with it, a flexible, translucent band divided into successive series of primary color-divisions. The screen-band is adapted to travel synchronously with the positive film, so that the color-divisions occupy the same positions relatively to the film in projection as they occupied when the exposures were made.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions
are solicited for publication

The Booklet for Professionals

It is generally admitted that the article, "Methods of Advertising," by C. H. Claudy, which was published in our October issue, 1909, was the best treatment of the subject that has ever appeared in a photographic magazine. The best advertising-feature recommended by Mr. Claudy is the booklet, and the wise photographer will have given this important subject his immediate and best attention. Singularly enough, when the form containing Mr. Claudy's article was on the press, a booklet constructed along the lines recommended by Mr. Claudy was issued by Mr. J. C. Strauss, the eminent St. Louis portrait-photographer, which reflects, in a delightful and convincing way, the resourcefulness, enterprise and taste of that brainy and successful photographer. The booklet in question is very tasteful, original and refined in design, comprehensive in scope, yet tells its story briefly and effectively. Mr. Strauss knows human nature pretty well and therefore devoted but thirty-two pages to his charming little brochure. It is well printed in large, clear type, and the illustrations, interspersing the booklet, represent the various apartments of his neat and attractive studio, as well as reproductions in half-tone of some of his patrons. Everything is printed in a warm sepia tone. An original and valuable feature of the booklet consists in two detachable post-cards also printed in sepia, the picture side illustrating, in one case, the fireplace (Growlery) of the Strauss studio, and in the other a view from the vestibule of the interior of one of the large, pillared halls. The whole thing exemplifies the business enterprise and taste of an educated man. If it does not bring results in profusion, and of the right kind, we shall be greatly mistaken.

Boston Young Men's Christian Union Camera Club

THE annual photographic competition of this lively and progressive camera club took place November 3 with the following results: General exhibit—first prize, "Cunard Fire," to H. C. Shaw; second, "Twilight," to John E. Corea. Landscape—first prize, "Der Kirchturm," to F. M. Goodhue; second, "The Old Stone Bridge," to H. E. Bump. Portraiture—first prize, "Group," to J. Machin; second, "An Interesting Book," to H. I. Saunders. The total number of pictures submitted showed a healthy spirit of the club, and a pictorial activity which will surely lead to eminent achievement. The successful pictures displayed unusual merit, and some of them will embellish the pages of an early issue of PHOTO-ERA. The jury was as

follows: Wilfred A. French, Frank R. Fraprie and Robert L. Ennis. The club is composed of forty-four members, with the following-named officers: Stephen E. Woodbury, president; H. C. Shaw, vice-president; and Wilfred W. White, secretary. The exhibition of all prints submitted continued for several weeks and attracted considerable attention among members of the Union and the camera club and their many friends.

A Successful Lecturer

NEVER in the history of the illustrated lecture has the standard been so high as it is to-day. For many years the late John L. Stoddard held the commanding position of the lecturer *par excellence*, by reason of his ripe scholarship, brilliancy of diction, stirring eloquence and magnetic personality, as well as the variety and beauty of his pictures. In spite of a certain claim to the contrary, Stoddard has no successor, nor is there a lecturer in this country today who combines so many brilliant qualities. Nevertheless, there are now before the public many gifted lecturers whose entertainments are eminently interesting, instructive and artistic. In these respects the illustrated lectures of Nox McCain take very high rank. His "Beautiful Picture Pilgrimages" are hereby heartily recommended to members of the craft.

Honors at Dresden

AMONG the list of well-known European manufacturing-firms, published in our November issue, who won high honors at the Dresden International Photographic Exposition, we neglected to mention The Autotype Company, of London, whose Carbon Tissues are indispensable in the carbon process; Schulze & Billerbeck, of Berlin, whose excellent "Euryplan" lenses are rapidly making a name for themselves; "Chemische Fabrik," E. Schering, of Charlottenburg, Germany, of pyro fame; and J. H. Dallmeyer, Ltd., of London, whose Portrait and Stigmatic lenses need no introduction to our readers.

Studio or Home Decoration

FACSIMILES in color of famous works of art, when reproduced with fidelity, are a joy. PHOTO-ERA has secured a collection of these reprints, made in Germany. They are carefully-selected genre-subjects. They average 7 x 9 inches in size, and when framed close in a wide, simple moulding are extremely beautiful and look like genuine paintings. They retail in art-stores at \$1.00 each, sometimes more. Sent, carefully packed and post-paid, on receipt of 75 cents, by the publisher of PHOTO-ERA.

Study under a Master

It may interest aspiring students in photographic portraiture to know that Nicola Perscheid, the famous portrait-photographer of Berlin, Germany, and one whose patrons embrace the members of German aristocracy, is willing to take a pupil and teach him the kind of photography which has brought him fame and fortune. As there will be many applicants for such a highly desirable position, it is obvious that the student must have the necessary requisites as to ability and character. Mr. Perscheid has, without doubt, the most magnificent and up-to-date studio in Europe. It is equipped with the most costly and most approved apparatus and many time-saving methods of his own invention. He is himself an aristocrat, a man of culture, refinement and extraordinary artistic and technical ability. The charge for tuition is 1000 Marks per annum. It is unnecessary to state that the student would enjoy all the advantages afforded by the imperial city in the way of art, music, language, etc. For further particulars address the editor of PHOTO-ERA.

Color-Reproductions of Great Masters

WHEN in London, last August, we had the pleasure to examine the famous Menpes Series of Great Masters, published by A. & C. Black, of London. This firm's art-gallery contained one framed example of each subject, the total number being about twenty-seven, to which additions are constantly being made. It is difficult to overestimate the great beauty and technical accuracy of these reproductions, which differ from the originals only in size and substance. We were enabled to make a comparison between several of these facsimiles and the original paintings in the National Gallery and the Wallace Collection and were surprised to find no visible difference except that the originals were larger and differently framed. We particularly admired such well-known subjects as "Portrait of an Old Lady," by Rembrandt; "Lady Hamilton," by Romney; "The Age of Innocence," by Reynolds; "The Hay-Wain," by Constable; "Laughing Cavalier," by Frans Hals; "A Study of Grief," by Greuze; "The Swing," by Fragonard, and "Portrait of Miss Bowles," by Reynolds. Prominent, also, for wonderful fidelity and technical perfection in this collection are "Princess Margarita-Maria," by Velasquez; "La Gioconda," by Da Vinci; "The Broken Pitcher" and "The Milkmaid," by Greuze — all in the Louvre; "Christ and the Tribute-Money," by Titian, in the Dresden Gallery. Art-lovers will be glad to know that these remarkable works of art may be procured in this country from the sole American agents, Witcombe, McGeachin & Co., 874 Broadway, New York, but in frames designed by Menpes in the old ducat gold finish which harmonizes admirably with the colors of each picture. The prints average in size 14 x 17 inches. The above-named firm will send to any one interested a

copy of its illustrated catalog of the pictures and frames, the prices of which will be found extremely reasonable.

BOOK-REVIEWS

Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices.

MASTER-PAINTERS OF BRITAIN, by Gleeson White. Size, 9 x 11½ inches. Price, \$3.00, net; postage, 35 cents. 168 full-page illustrations. International Studio, John Lane Company, 114 West 32d St., New York.

The aim of this volume is to present a selection of paintings by the most notable British artists, together with an account of their lives and their works, as shall acquaint the reader with the development of painting in Britain, and the relation and indebtedness each artist bears to the other. This work combines, in an attractive form — that of a panorama of beautiful pictures — an informal history of British art with an easy method of acquiring a wider artistic culture. Thus one becomes familiar with the works of such master-painters as Hogarth, Reynolds, Turner, Raeburn, Rossetti, Burne-Jones, Leighton, Millais and a hundred others, and develops the artistic faculty and an appreciation of the beauty and strength of their merits. As the author well says, "The realistic school is apt to be contemptuous of the poetic school; the picture with the dramatic or anecdotal subject is disliked by those who rank masterly technique expended upon certain aspects of nature as the highest form of art." Here the effort is made to give fine examples of all the varying styles which have been mastered by British painters, but with no ulterior motive to exalt any one school to the detriment of the rest. The work is arranged on a chronological plan. An explanatory note preceding each plate explains fully the theme of the picture and so supplies points often lost — the pleasure to know the whole of the story represented. Interesting facts about the artist, and the picture itself, its origin and fate, and a few words of criticism from the editor's pen thus accompany every illustration. The volume terminates with a biographical dictionary of the artists represented, which feature will further assist in attaining the aim of the work. The pictures are full-page half-tone plates, which are, in the main, admirably done.

ASTRONOMY WITH THE NAKED EYE, by Garrett P. Serviss. 247 pages, with many charts, illustrations, etc. Svo. Price, \$1.40. Harper & Brothers, publishers, New York and London.

Of the many books published on astronomy for the amateur and layman, this volume by Mr. Serviss commends itself very strongly, for the author has been identified, in a public way, with scientific matters, including astronomy, for many years. He is remembered by many from a series of

lectures with tremendously effective stage-illustrations on the structure of the earth. His book on astronomy is delightfully clear and valuable to the student of the starry heavens. The casual observer of our skies at night quickly learns to appreciate the scheme of the constellations of which the volume contains a full number of charts remarkable for their clearness. It is eminently a book for the adult and the young, and is dedicated to the author's son, who came to an untimely death Dec. 23, 1907.

OLD BOSTON DAYS AND WAYS — From the Dawn of the Revolution until the Town became a City. By Mary Caroline Crawford. Profusely illustrated. 8vo. Price, \$2.50, net. Little, Brown & Company, Boston, 1909.

Miss Crawford has here painted a vivid picture of life and manners which followed the Revolution. Her portrayal of famous happenings in an eventful period of Boston's early history is characterized by a fresh, vigorous touch and a statement in historical accuracy that cannot be too highly praised. While thrilling events occurred elsewhere during the childhood days of the Republic, it is to Massachusetts, and, more particularly, to Boston, that the nation owes an everlasting debt. No patriotic American should neglect to acquaint himself with the contents of this admirable work. In order to impart uniform interest to her story, the author has not been obliged to draw upon her imagination, but presents facts derived from eminently trustworthy sources. The book fills a gap which has long existed in literature on American history, for no single volume has covered the very interesting period when the peculiar genius of Boston was beginning to manifest itself in art, politics and civic life. The charm and value of the book are enhanced by illustrations of rare prints, photographs and charts.

OPTISCHES HILFSBUCH FÜR PHOTOGRAPHIERENDE. By Dr. H. Harting, mit 56 Figuren im Text. Octavo. Price, Marks 4.50 (\$1.10); cloth, Marks 5.50 (\$1.35). Gustav Schmidt, vormals Robert Oppenheim, Berlin.

While it is true that the subject of photographic lenses has been written upon almost *ad nauseam*, one is always prepared to welcome a work from the pen of a thoroughly competent writer. Dr. Hans Harting enjoys a very high reputation in Europe as an authority on optical matters, particularly in the realm of photography. He occupied, until quite recently, the position of technical director at the optical works of Voigtländer & Sohn, Brunswick, Germany. In this capacity he accomplished much valuable work, including the calculation of such famous lens-types as the Heliar, Dynar and Oxyn. Thus as a mathematician and scientific investigator he ranks with P. Rudolph, E. von Höegh, R. Steinheil, H. Dennis Taylor and others who have rendered important service in advanced photographic mathematics. Dr. Harting's optical work above mentioned is intended for ama-

teur and professional practitioners whom the author aims to acquaint with the principles of geometrical optics, on which the construction of photographic instruments is based. The author was circumscribed by the publishers in his treatment of the subject and could not, therefore, make the work as comprehensive, from a scientific view-point, as he is fully capable of doing. In his foreword he points out these possible deficiencies in his work, and refers to the works of writers of authority. Many questions which are asked in photographic publications by photographers, clubs, etc., regarding the capacity, depth of focus, illumination, etc., of their own photographic objectives, are here treated in a manner at once intelligent, concise and accurate. A perusal of Dr. Harting's important volume will leave the intelligent reader in no state of doubt regarding the capabilities of the lenses he is using. For this reason, the volume is heartily recommended to the beginner as well as to the advanced practitioner. Chief among the seventeen highly interesting chapters are those devoted to dispersion of the light-rays from one medium to another; refraction of light through various lens-surfaces; the optical image in reality; limitation of light-rays; reflection and absorption in photographic objectives; the illumination of the image; depth of focus; color-deviations and optical glass; the principal photographic objectives — astigmats and anastigmats; the telephoto objective.

In these days of the construction of so many types of lenses — made possible by the use of the Jena optical glass — the photographer will read with profound interest Dr. Harting's exposition of the construction and characteristics of the various types of anastigmats. With admirable impartiality he explains the various systems, including the principal ones made in Germany and England; viz., Steinheil's Orthostigmat and Unofocal; Carl Zeiss' Planar, Tessar and Unar; Taylor, Taylor & Hobson's Cooke lens; Goerz's Syntor and Celor and Voigtländer's Collinear, Heliar, Dynar and Oxyn. The volume is illustrated with fifty-six explanatory diagrams, which will greatly assist the reader in following the interesting statements of the author.

THE ART OF RETOUCHING, with a Chapter on PORTRAITURE. By J. Hubert, F. R. P. S. Price, postpaid, 50 cents. Hazell, Watson & Viney, Ltd., London.

This small work of about eighty pages is a treatise on retouching written from the standpoint of an expert, and extremely valuable to beginners in the art of retouching. In the excellence, clearness and trustworthiness of its information Mr. Hubert's book far excels similar works published in this country at a higher price and which are unduly praised by those urging their sale. Many of these dollar books on retouching are not worth the paper on which they are printed and should be carefully avoided.

We are glad to give the above-named work by Mr. Hubert our personal endorsement.

LONDON LETTER

By E. O. HOPPÉ, F. R. P. S.

THIS is the active time of the photographic year, not in negative-making — for light has begun to be feeble and non-actinic — but in shows, meetings and general reunions. The individuals who have been behind their exhibited work all the year, now, so to speak, come in front of the curtain. It is interesting to meet, personally, those whose work we have been admiring for some time, or those who have burst on us in a flash of genius. Naturally, we are often surprised; for the personality of certain people does not always accord with the character of their work, and we have to get used to find the gentlest and most conventional individual responsible, sometimes, for the most original effects.

In meeting the year's exhibitors here in England one cannot help but notice how few women there are amongst them compared to the men, and it seems strange the number of women pictorialists should not increase more rapidly. In photography women have equally good opportunities as men to do good work; if anything, one would imagine them mentally and physically almost better endowed. They are less tied to convention and not so afraid of originality; they have delicacy of touch and a kind of instinctive taste and sense of proportion; besides, have they not that great photographic essential, the gift of patience?

At the photographic Salon, judging by the catalog this year, there were altogether only seven women exhibitors. The work of five is well known, so that it leaves only two who are new to the British public — Mrs. Anno Heilmann, of Berlin, and Mrs. Kandl, of Prague.

That women excel in pictorial photography and do work of a high and serious order has been proved abundantly. One only wonders why their ranks should be so thin.

Though there is a scarcity of women exhibitors at the big shows, there are plenty who are taking up portraiture professionally and doing very well. As a rule, it is two women who start a studio together, and partnerships of this kind have been found most satisfactory, as the work, though interesting, is very nerve-wearing, and a woman really needs a little help, not having a man's capability of what the Cockney calls "keepin' all on."

Two members of the Lyceum Club have done very well by visiting an artist-colony on the East coast and making a specialty of photographing their sitters among their own surroundings; chiefly, of course, in their studios. They have been so successful that they were obliged to take in another partner, as they had more work than they could get through with.

The modern idea, of course, is to do without a studio, or rather a studio-lighting, and for this the new Barnet Super Ortho Plate has been

found invaluable. All photographers know the advantage of using an isochromatic plate for portrait-work; but, alas! it was always too slow. This new one, however, has a speed number of 400 H. & D., so that it can vie with the fastest ordinary plate and yet give correct tone-values. This not only produces a truer likeness, but also does away with much need of retouching, as the unevenness of the skin-texture is not accentuated, nor are slight blemishes so apparent.

A good deal of discussion always goes on, at this season in England, about the real benefits of exhibiting and medal-winning. The consensus of opinion seems to be that participation in prize-competitions is profitable, as, first of all, it enables the exhibitor to compare his work with that of others, and then to win an honorable position in the photographic world. It is quite a laudable thing to gain every available medal, for a season or two, till one gets a public acknowledgment that one is a worker to be reckoned with. When this has been accomplished, medal-chasing — however successful — should be definitely abandoned. Contribute, however, to all good shows, as before, but only *hors concours*. Also, do not neglect steadily to send pictures to exhibitions conducted on the invitation-system, just so long as your purse and inclination will permit. Unfortunately, we have over here a few who are medal-hunters only, and it is the quarry, and not the chase, which they are after.

English professionals are much behind their American and German cousins in the matter of progress. A good many of us remember the day when all exhibition-catalogs contained a class for them apart from the amateurs; but such distinctions have long since disappeared, and yet we find but few coming forward as exhibitors and taking their share in the work of pictorialism and in aiding the progress of art in photography. In Germany the local professional is probably a member of the local society, enters for its competitions, takes its awards and is conversant with the pictorial movements of the time. It is a pity that in this country the professionals, with few exceptions, hold aloof and have no share or lot in the matter; consequently, the progress of pictorialism is very slow in the case of the average professional photographer.

An experiment of some interest has taken place in London. A congress of photographers was summoned to meet at the Earl's Court Exhibition. In the sum of 1/6 admission, tea and the freedom to photograph in the grounds and attend the meetings were included, so that it cannot be said that it was an expensive outing. Special parades of the Red Indians and the Cowboys who were performing in the arena took place; and as is well known from the pictures of some of our leading pictorialists, the exhibition-grounds themselves afford fine scope for picture-making. In the evening was a meeting, when Mr. A. H. Blake, the founder of the English Society of Night-Photographers, gave a short lecture on "Methods of Night-Work;" another

paper was read on "The Advantages of Belonging to a Photographic Society;" and the evening terminated with a display of lantern-slides on Autochrome, Thames and ordinary slides. Last year when a similar experiment was attempted 1,500 assembled; and as this year all the principal railway companies ran trains to the Congress, an even larger attendance resulted. Properly organized and well advertised, such a Congress should attract thousands of photographers, and the experiment is worth trying elsewhere.

It seems highly probable that there will be a revival of stereoscopic photography soon in this country; numerous articles are appearing in the photographic papers and in the columns of the lay press on the subject from many different points of view, and its usefulness is being demonstrated in many ways. In the journal of the R. P. S., there appeared a valuable article from the pen of F. Martin Duncan on what he calls "stereo-nature photography." He thinks that the heavy and cumbersome cameras that in the past were used for this purpose were responsible for its falling out of favor, but that renewed interest is following the manufacture of the small and portable stereo-cameras that are now on the market. He has special words of praise for the Verascope; but there are plenty of suitable cameras, and the plate-makers are producing plates for the small stereoscopic sizes. Both Mr. Martin Duncan and Mr. Adnams (in an article in *The Amateur Photographer*) show how stereo-pictures can be taken in an ordinary camera, while the former has some valuable remarks on the way in which they assist the study of nature-subjects and give much more the appearance of things as they really are than the ordinary photograph.

The American Federation of Photographic Societies
An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.
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Historian: WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

EDITORIAL mention of the work of the jury for the Sixth American Salon has been made elsewhere in this issue, so that further comment here is unnecessary. A list of the exhibitors and the number of prints accepted from each follows; and in the January issue we hope to have an article of appreciation, and reproductions of the most noteworthy prints. It will be a special number which every person interested in the work of the Federation should have.

- | | |
|------------------------|--------------------------|
| 4 Abbott, C. Yarnall | 1 Minns, Harvey W. |
| 2 Albrecht, Herman O | 1 Montgomery, Robert B |
| 1 Allyn, Dr. G. W. | 2 Morgan, F. A. |
| 1 Anderson, C. | 1 Morris, B. J. |
| 6 Anderson, Paul Lewis | 1 Nichols, Miles C. |
| 3 Anthony, Oscar C. | 1 Ogren, Ludwig C. |
| 1 Arbogast, M. Howard | 1 Oyster, Edwin F. |
| 1 Archer, Charles K. | 1 Pabody, E. F. |
| 2 Bingham, Katherine | 1 Pappin, P. R. |
| 3 Bodine, Oliver H. | 1 Parrish, W. and G. |
| 2 Bones, Ben., Jr. | 1 Parsons, Alexander |
| 2 Brookins, D. H. | 1 Peabody, Henry F. |
| 2 Brown, Edward | 2 Pepper, Crowell H. |
| 3 Brown, Fedora E. D. | 4 Phillips, William H. |
| 4 Brugulere, E. J. | 4 Porterfield, W. H. |
| 1 Chapin, M. W. | 2 Price, Frank C. |
| 4 Chislett, John | 3 Randall, R. L. |
| 4 Christiansen, C. W. | 1 Rau, Charles |
| 1 Christie, L. E. | 1 Rawson, Dr. and Mrs. |
| 2 Clark, C. W. | W. A. |
| 1 Clarke, C. F. | 1 Rheinheimer, Wm. A. |
| 1 Congdon, Herbert | 2 Roberts, H. A. |
| Wheaton | 1 Scheer, George H. |
| 1 Cushman, John M. | 1 Schuler, John W. |
| 1 Daniels, J. R. | 3 Schreve, B. F. Hayward |
| 1 Davis, William S. | 2 Sides, Edward B. |
| 2 Eisen, Gustav | 1 Sinclair, Dr. A. N. |
| 1 Elmberger, George C. | 2 Skolfield, S. S. |
| 1 Engel, A. W. | 1 Sleeth, R. L., Jr. |
| 1 Fogg, George E. | 1 Smith, C. N. |
| 2 Fountain, E. G. | 1 Smith, Edward M. |
| 1 Freitag, F. W. | 2 Stout, Horace E. |
| 1 French, Wilfred A. | 1 Taylor, C. C. |
| 5 Grierson, J. W. | 1 Taylor, Mary Lyon |
| 1 Harvey, E. S. | 4 Thibaudeau, Augustus |
| 1 Heimerdinger, Howard | 1 Thorp, Joseph G. |
| 1 Jewett, Nelson J. | 1 Underhill, H. L. |
| 4 Jones, John F. | 1 Underhill, James E. |
| 4 Kauffman, R. S. | 1 Vernon, Robert S. |
| 3 Kilmer, T. W. | 1 Weiss, Charles J. |
| 2 Knox, William T. | 2 Wierum, Paul |
| 2 Langston, H. A. | 5 Willard, Eleanor W. |
| 5 Liddbury, F. Austin | 3 Wright, F. L. |
| 2 MacNaughtan, Wm. E. | 3 Zerbe, William H. |
| 1 Mead, T. L., Jr. | 4 Zimmerman, Walter |
| 1 Miller, Frank E. | |

AUSTRIA — 5

- | | |
|---------------|-------------------|
| 2 D'Ora, Miss | 3 Mautner, Gustav |
|---------------|-------------------|

DENMARK — 6

- | | |
|----------------------|--------------------|
| 1 Duckert, A. and D. | 1 Lange, Bendix |
| 2 Frederiksen, Carl | 1 Sorenson, Th. G. |
| 1 Lundsteen, P. | |

ENGLAND — 22

- | | |
|-----------------------|----------------------|
| 2 Aitchison, Gertrude | 1 Marshall, Arthur |
| 1 Bishop, Kenneth F. | 6 de Meyer, Baron A. |
| 2 Blake, A. H. | 1 Simmons, H. Y. |
| 2 Huson, Frank E. | 1 Velicogna, Richard |
| 2 Hensler, W. A. I. | Charles |
| 2 Judge, Fred | 1 Walburn, A. W. |
| 1 Lewis, Furley | |

FRANCE — 2

- | |
|-------------------|
| 2 Demachy, Robert |
|-------------------|

GERMANY — 22

- | | |
|---------------------|---------------------|
| 6 Dührkoop, Rudolf | 3 Perscheid, Nicola |
| 3 Glauer, Max | 1 Ruf, C. |
| 2 Kleintjes, Dr. L. | 3 Schensky, F. |
| 4 Müller, Ernst | |

HOLLAND — 16

- | | |
|--------------------|---------------------|
| 1 Bessenbrugge, H. | 2 Middendorp, G. |
| 4 Eilers, Bern F. | 1 Smits, Ant. T. T. |
| 5 Loeb, E. A. | 3 Van Dyke, Anthony |

ITALY — 6

- | | |
|---------------------|---------------------|
| 2 Elliott, Henry C. | 2 Tesio, Giuseppe |
| 1 Miazzi, Oreste | 1 de Thierry, J. F. |

WITH THE TRADE

Books on Retouching

CONFORMING to our well-known policy, we neither advertise nor endorse books on photography unless they are quite trustworthy guides. We have more than once scored certain books devoted to the subject of retouching, which are of little or no use in the successful practice of the art. "The Art of Retouching," by Clara Weisman, has proved itself worthy among experts, who regard it as the most reliable guide on the subject that has yet appeared. It treats the subject in an eminently able, lucid and accurate manner, and the beautiful illustrations greatly assist the aim of the author. The price of the book is \$1.50, post-paid, and it is published by the St. Louis-Hyatt Photo-Supply Company, St. Louis, Mo.

Kruxo to the Fore

PLANS are being drawn for a new building for the Kilborn Photo-Paper Company, Cedar Rapids, Ia. Kruxo papers and, particularly, post-cards, have become so popular in the last few years that the old quarters were entirely inadequate. The new factory will be a four-story structure 38 x 140, fire-proof, and equipped with all the most modern appliances for the manufacture of photographic papers. A printing-plant will also be provided for the publicity and post-card departments. Cedar Rapids may well be proud of this flourishing industry, as it is with not more than one exception the heaviest local shipper of freight. Few people understand the real extent of the Kruxo business. As an example, it may be stated that aside from other supplies the Kilborn Photo-Paper Company has been putting out 2,000,000 post-cards a month, 20,000 a day going to one firm alone. The papers for amateur and professional use are now so widely used that twelve demonstrators are maintained on the road all the time, and branch offices, where stocks of goods are carried, are maintained in Buffalo, St. Louis, Los Angeles, Sacramento and Seattle.

Goerz Lenses in the Middle States

BOTH Burke & James and the C. P. Goerz American Optical Company join in the mutual pleasure of announcing that the former firm, with headquarters at Chicago, has been appointed sold agent for the famous Goerz lenses. This line of goods needs no special introduction, having been known for years as a product of superlative optical qualities. A complete line of Goerz lenses, cameras and binoculars will in future be carried by Burke & James, ready for immediate delivery, and the work of fitting lenses to shutters and cameras will be done in an efficient manner by trained experts.

Still at the Old Stand

OWING to the change of street numbering in Chicago, the new address of Burke & James is 617-631 Jackson Boulevard, where all communications should be directed. This enterprising concern occupies its original quarters at Jackson Blvd. and Desplaines St., in spite of the unfamiliar numbers.

Christmas Gifts

HEBERGER'S Cloth Photo-Process solves the gift-problem, whether one is an amateur and wishes to prepare home-made gifts or a professional anxious to get his share of the Christmas trade. Heberger's process is simple, reliable and permanent; the results, very beautiful. During the holiday season any photographer can reap a rich harvest with it by printing from negatives of amateurs on cushion-tops, book-marks, handkerchiefs and everything made of cloth. It also furnishes a good side-line for a vacation-resort studio.

American Microscopes in London

WHEN passing through Holborn Circus, London, we made a call on Messrs. A. E. Staley & Co., 19, Thavies Inn, a quiet but convenient little street near the Prince Albert statue. Here we found a very large and complete assortment of microscopes and other optical goods made by the Bausch & Lomb Optical Co., Rochester, U. S. A. Mr. Staley, Jr., reported a large and increasing demand for these American microscopes, owing to their superior workmanship, perfect adjustment and moderate price. This information pleased us immensely, particularly as it proved that American goods, when well made, can compete successfully with those of European manufacture.

A Collins House-Organ

Photographic Progress, that much-talked-of professional journal, has been sold, and will in much reduced form be sent free of charge to every professional photographer in America as the organ of the A. M. Collins Mfg. Co., makers of high-grade mounts.

The dignity and refinement of the products, as well as the business-methods of this eminent firm, are a guaranty that these same high qualities will, henceforth, characterize the firm's new house-organ. It will not, like similar publications, print sensational news of doubtful character, which includes personal items intending to benefit some of their patrons, but which are more likely to injure them or make them objects of ridicule. We have in mind a house-organ which ascribes all manner of impossible achievements to its customers.

Reliable Photographic Pastes

THERE are more pastes recommended for photographic purposes on the market than it is possible to enumerate. Most of them are very inferior in quality and possess little or no permanent adhesive power. Generally, those of inferior quality are put up in the most attractive jars, with elaborate labels. The standard pastes have receptacles quite modest in appearance. Photographers who desire their prints not to loosen from the mount, and to have at their command a paste with all desirable qualities, should remember that Day's White Paste is unsurpassed. These are standard goods and have maintained their high and well-merited reputation for many years. They are not designed to make an artistic display in a show-window, but are honest and trustworthy products.

A Reliable Fountain-Pen

A WELL-KNOWN humorist has said that a stubborn or leaky fountain-pen was productive of more profanity in one minute than what came from a wicked and shameless parrot in a month. This is undoubtedly true of certain makes of pens, but *not* of the Onoto. This self-filling pen is never a source of irritation, except when the supply of ink is exhausted, and it will successfully endure much hard usage. Its sterling merits and modest price commend themselves to an appreciative public.

Studios for Sale

WE have, of late, received many requests to advertise photographic studios. Consistent with our policy, we demand absolutely trustworthy references in such cases, as the proprietors are prone to overstate the advantages of their studios, the amount of business done, etc. Those advertised in PHOTO-ERA are always as represented in the advertisements. We have been obliged to decline the insertion of many others, simply for the lack of satisfactory references.

PHOTO-ERA believes in a uniform rate for all, and not in discriminations and reservations which give one advertiser an advantage over another.

Restoring Daguerreotypes

MANY persons entirely unqualified make it a business to restore faded or spoiled daguerreotypes. The matter has reached such a serious stage that we are pleased to refer such work to one who is entirely competent — Mr. Baldwin Coolidge, 410 A Boylston Street, Boston, U. S. A. Mr. Coolidge is a photographic specialist of long and thorough experience, and has made the restoring of daguerreotypes a speciality. Work entrusted to his hands will receive the best expert attention.

An Ingenious Flash-Lamp

IN the early days of flashlight photography the editor made numerous experiments, among which was one with a gauze screen held in the left hand while the right hand held and set off the flash-lamp. This diffused the light, which, as is well known, is highly desirable in portraiture. Later, we noticed that certain photographers used a stationary screen for diffusion of the light. This feature has now been embodied in an invention by Mr. A. Robbins, the screen and lamp being combined into one compact and very efficient device. Please see advertisement in this issue.

A Rare Chance to Make Money

OWING to the death of the proprietor of a certain valuable product, which can be used to great advantage by the photographer in his business, an opportunity is presented to the right firm or individual, having the necessary capital, enterprise and push, to place upon the photographic market a practically new article. The same possesses the merit of novelty, cheapness and extreme efficacy, and is very cheap to manufacture. It is the only thing of its kind, is protected by patents, and the new owner would, for a relatively small amount of cash, acquire all the stock and assets of the company; also, the necessary machinery, etc., for its manufacture. No offer will be entertained except for cash, which should be understood at the outset. All communications on this subject should be addressed to the editor of PHOTO-ERA, 383 Boylston St., Boston.

PHOTOGRAPHIC EXHIBITIONS

Information for publication under this heading is solicited

<i>Society or Title</i>	<i>Date</i>	<i>Entries Close</i>	<i>Particulars of</i>
Boston Camera Club Boston, Mass.		Nov. 1	John Thurston, Sec'y, 50 Bromfield St., Boston, Mass.
Sixth American Photographic Salon Philadelphia, Penn.	Dec. 1 to Dec. 26	Oct. 1	C. C. Taylor, Sec'y, 3236 Cambridge Ave., Toledo, O.
Worcester Art Museum Worcester, Mass.	Oct. 30 to Nov. 29	Oct. 19	Philip J. Grentner, Director, Worcester, Mass.

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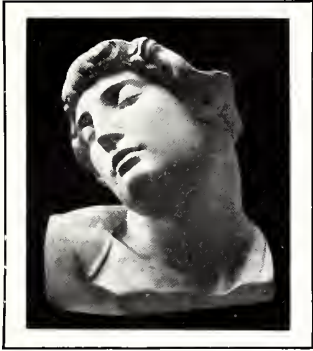
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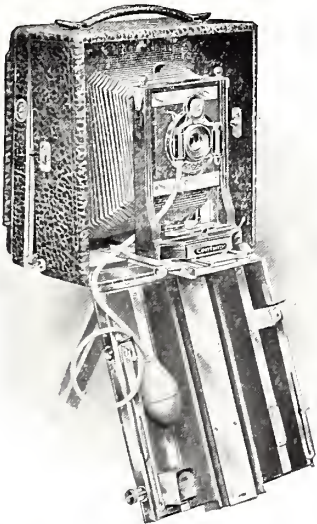
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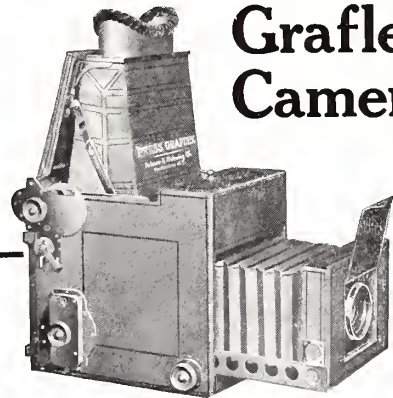
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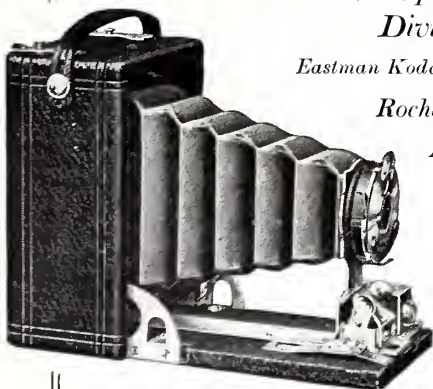
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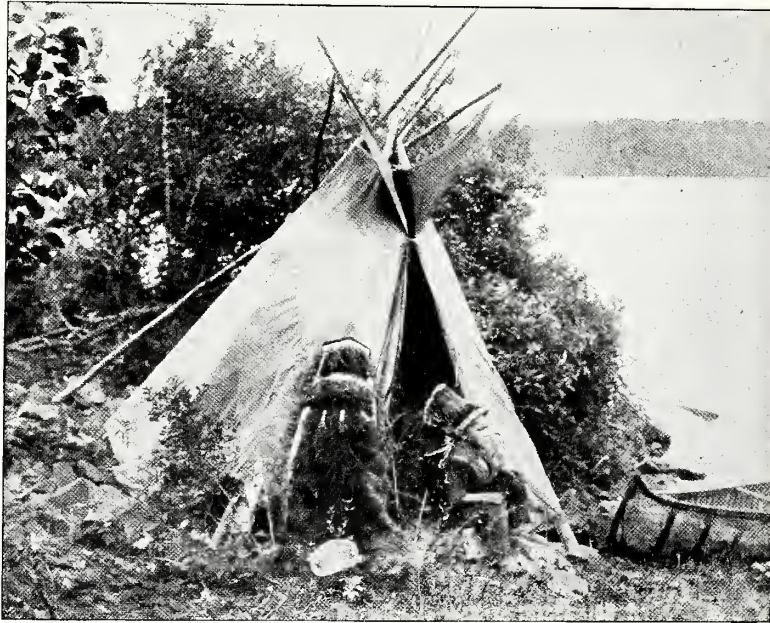
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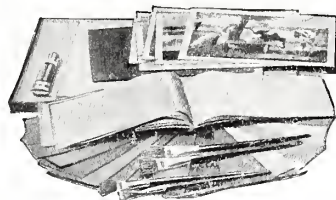
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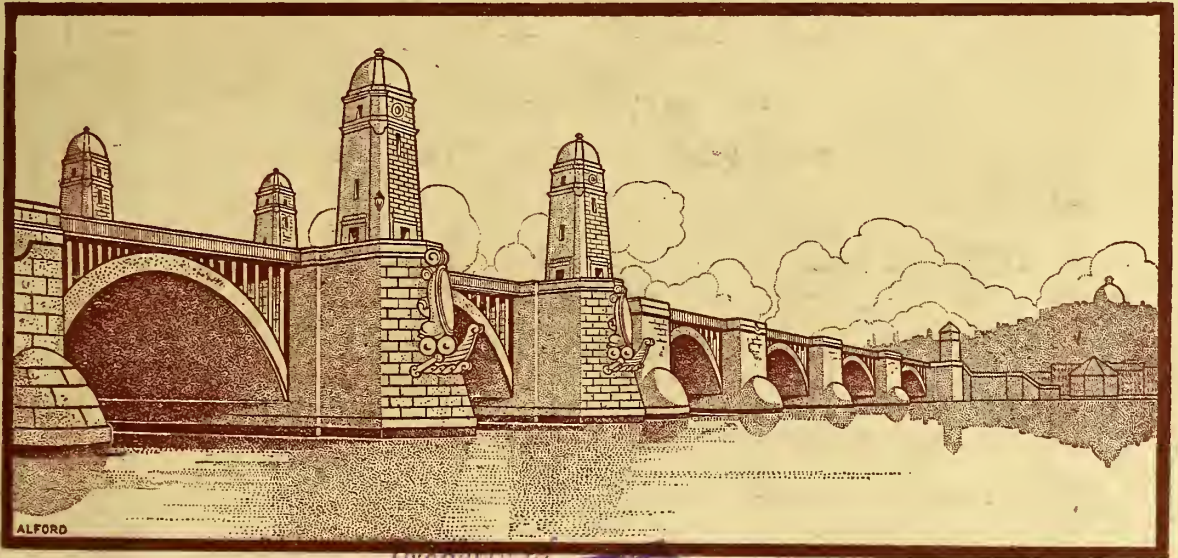
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